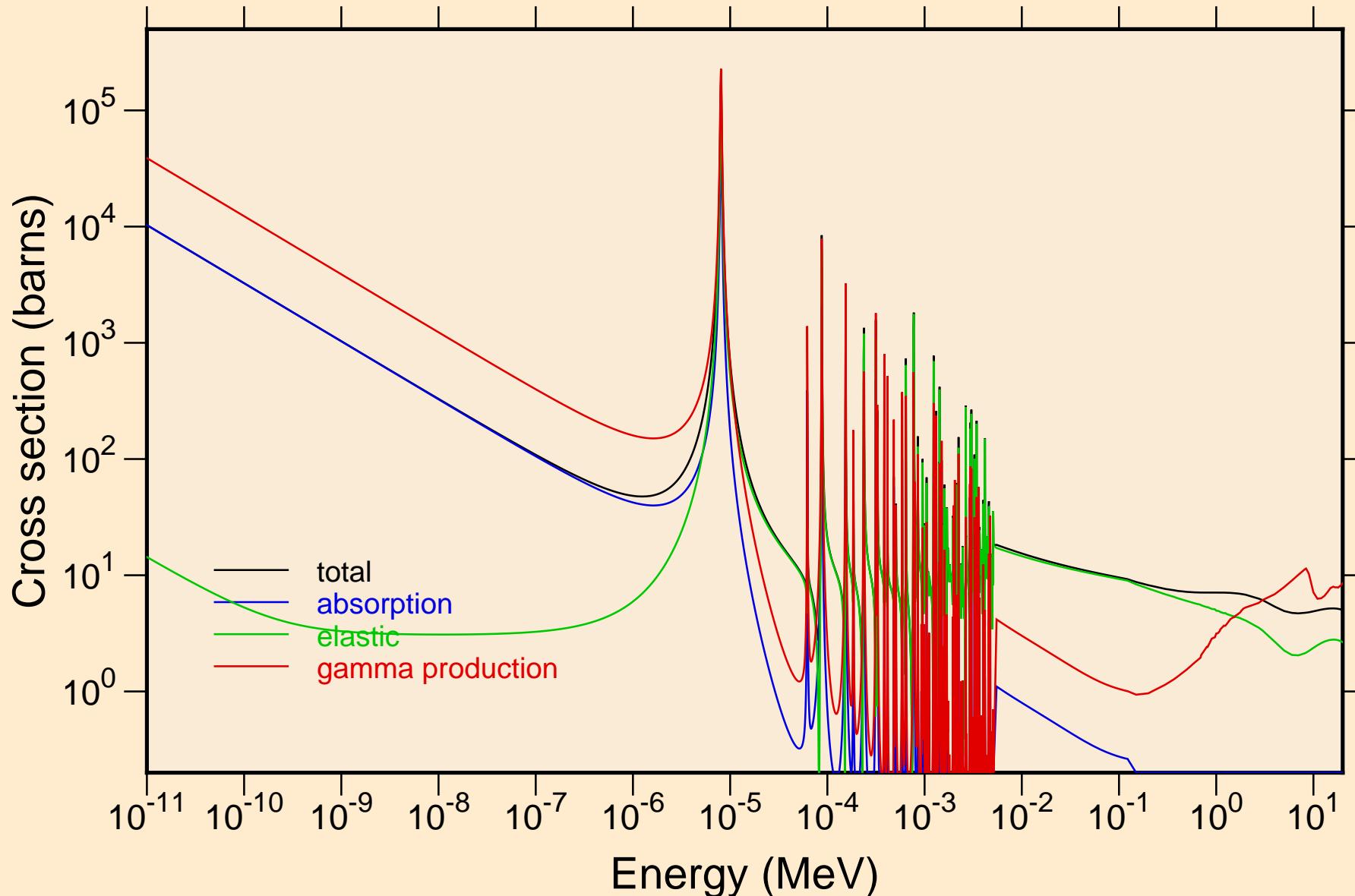


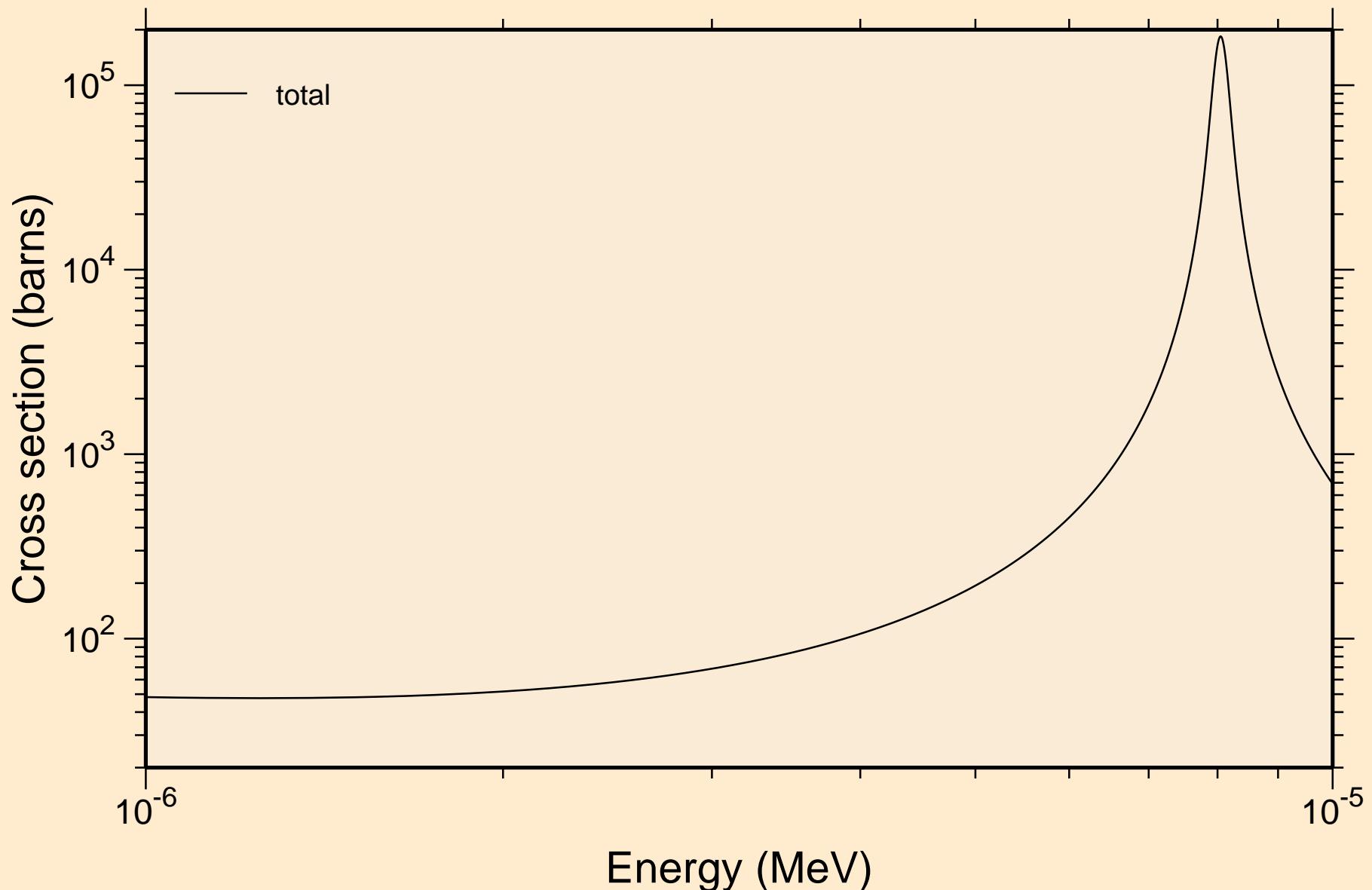
# ADVANCE CALCULATIONS

## Principal cross sections



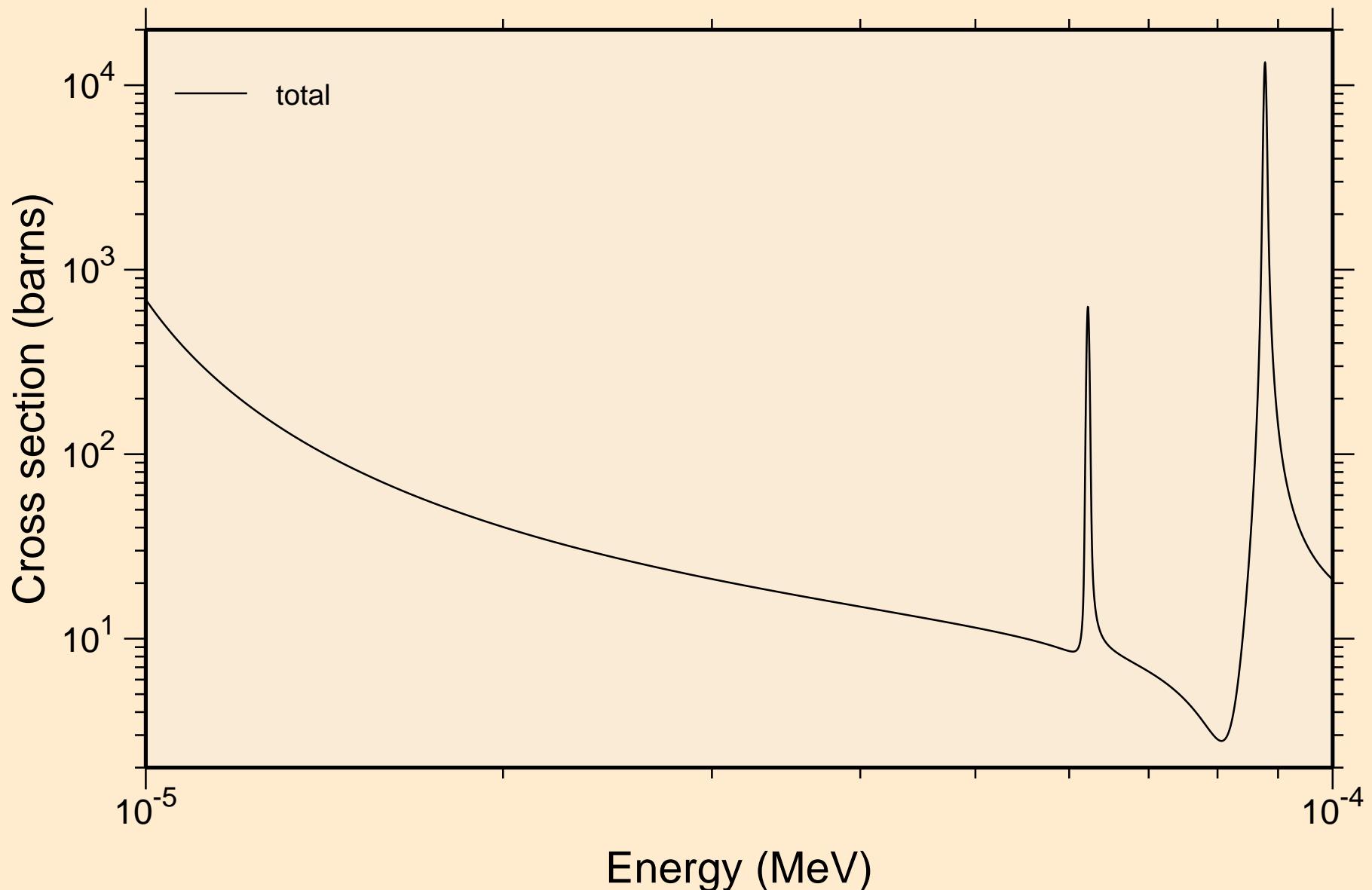
# ADVANCE CALCULATIONS

## resonance total cross section



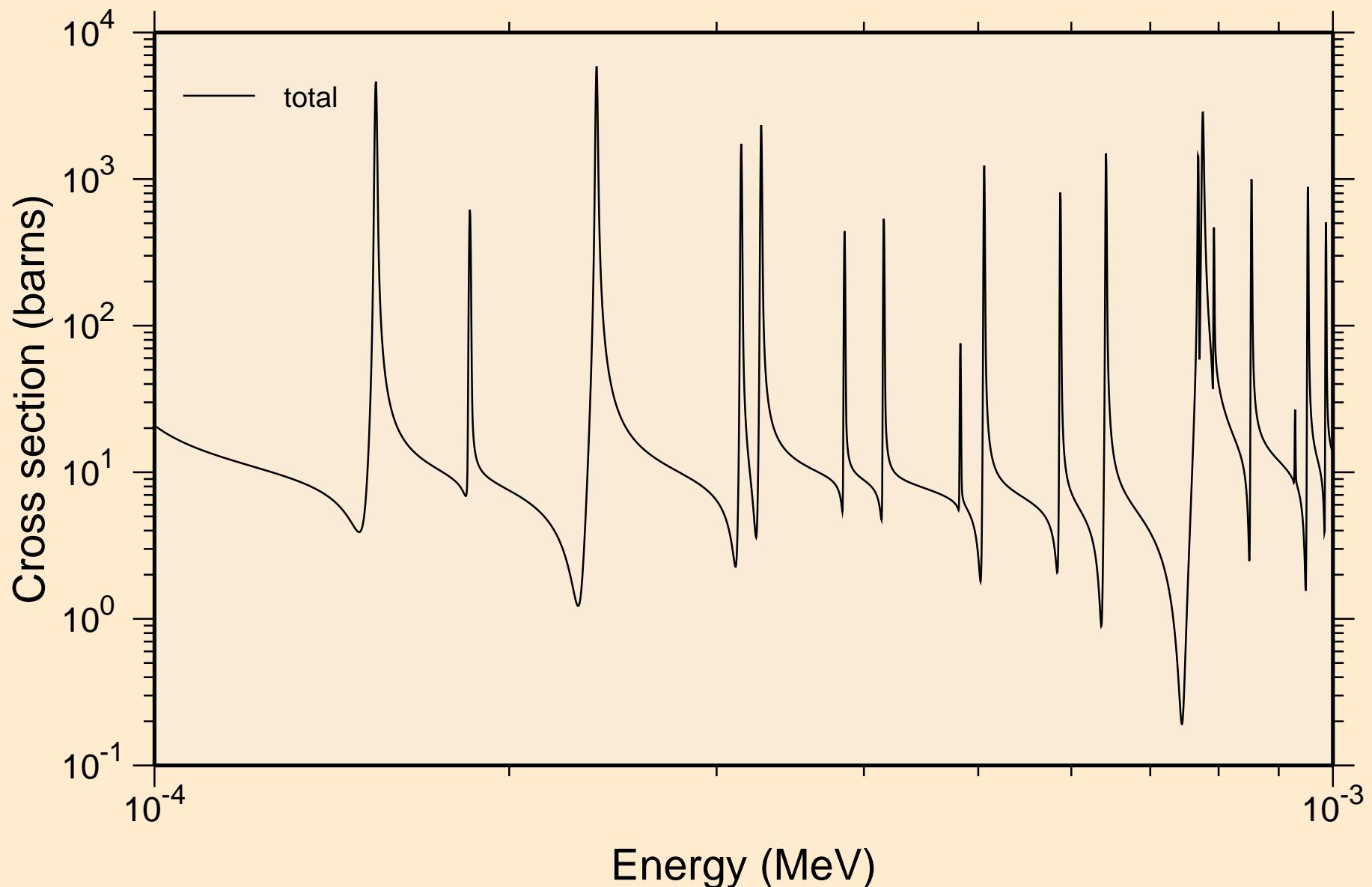
# ADVANCE CALCULATIONS

## resonance total cross section



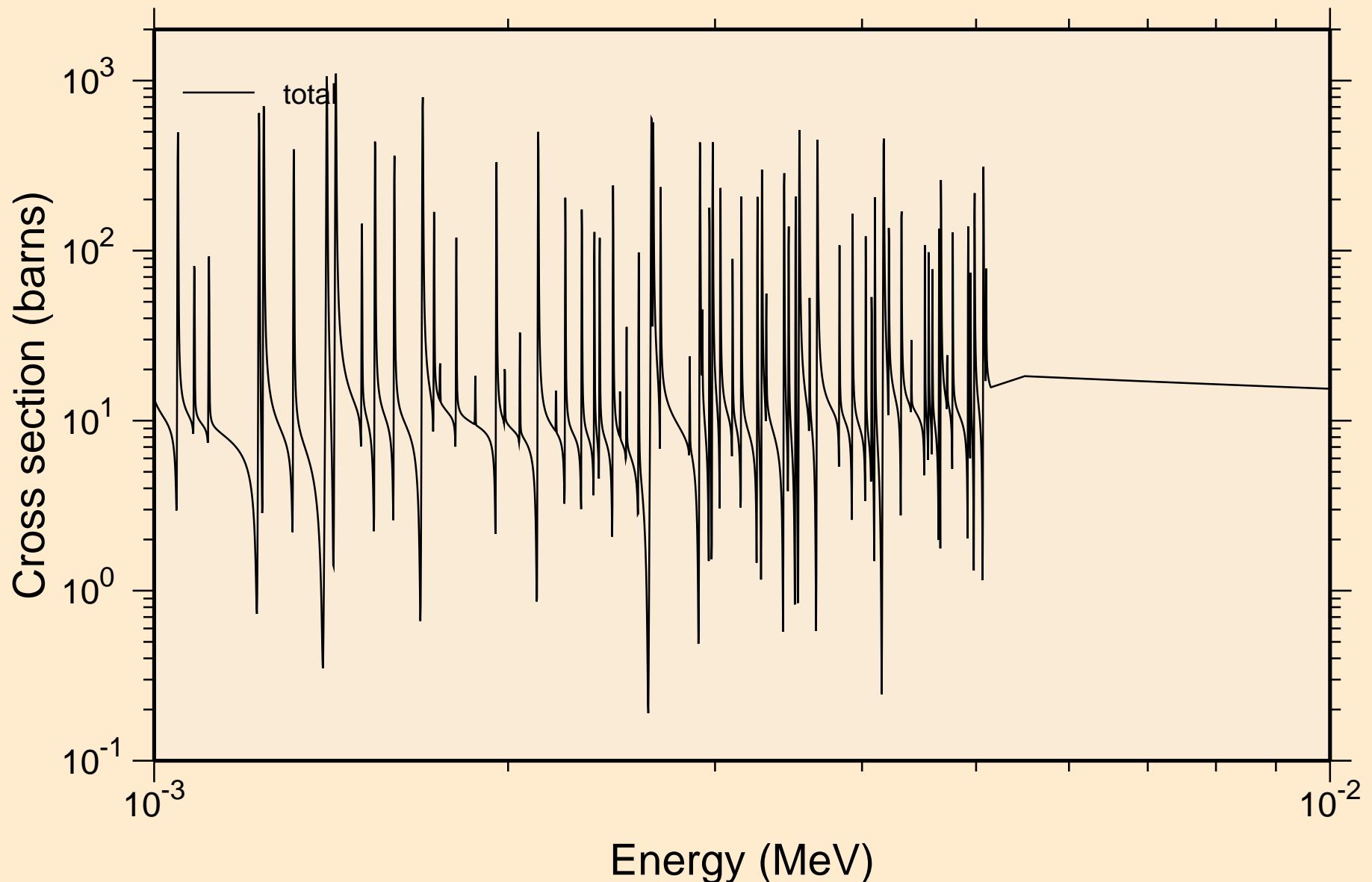
# ADVANCE CALCULATIONS

## resonance total cross section



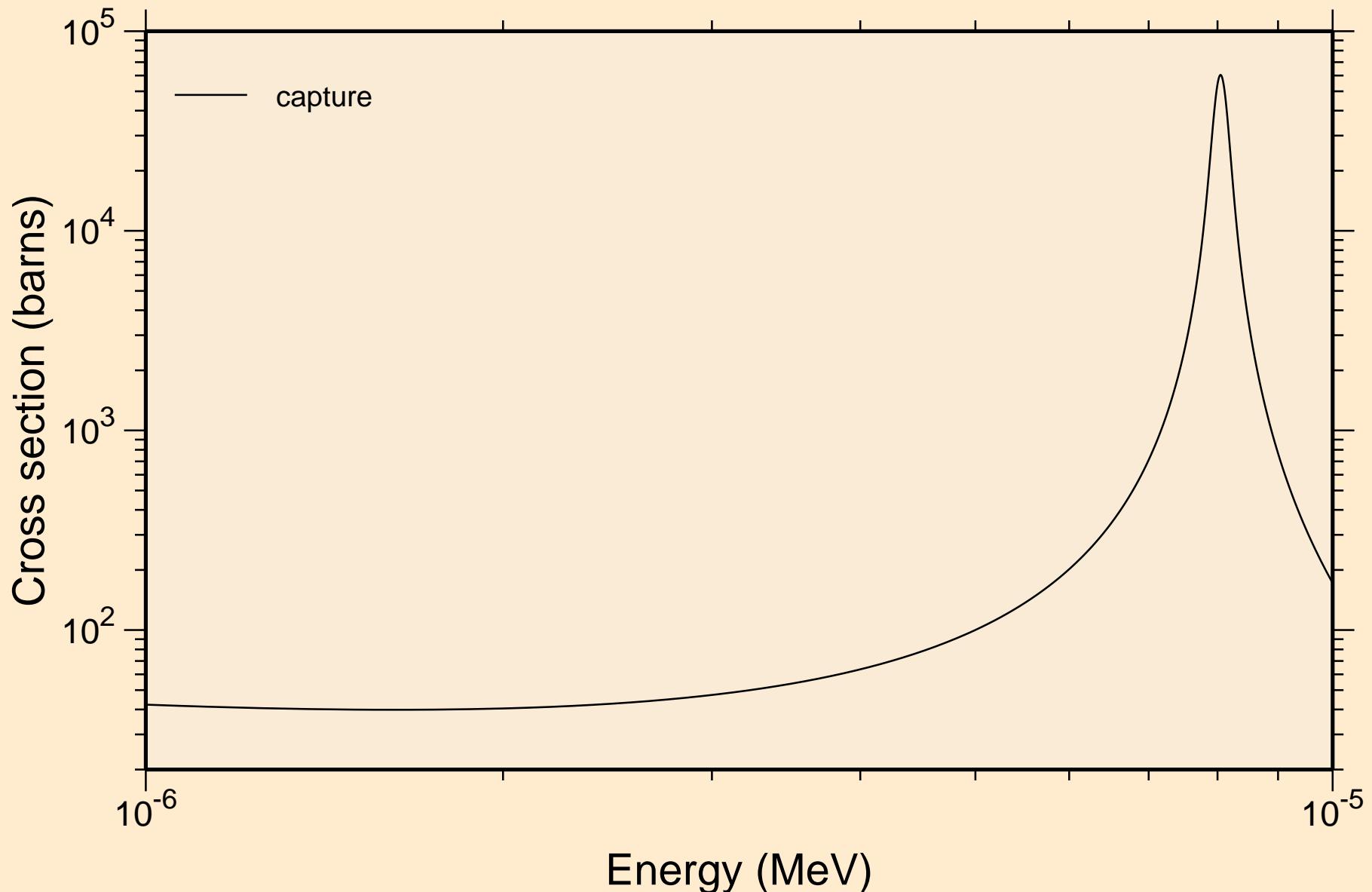
# ADVANCE CALCULATIONS

## resonance total cross section



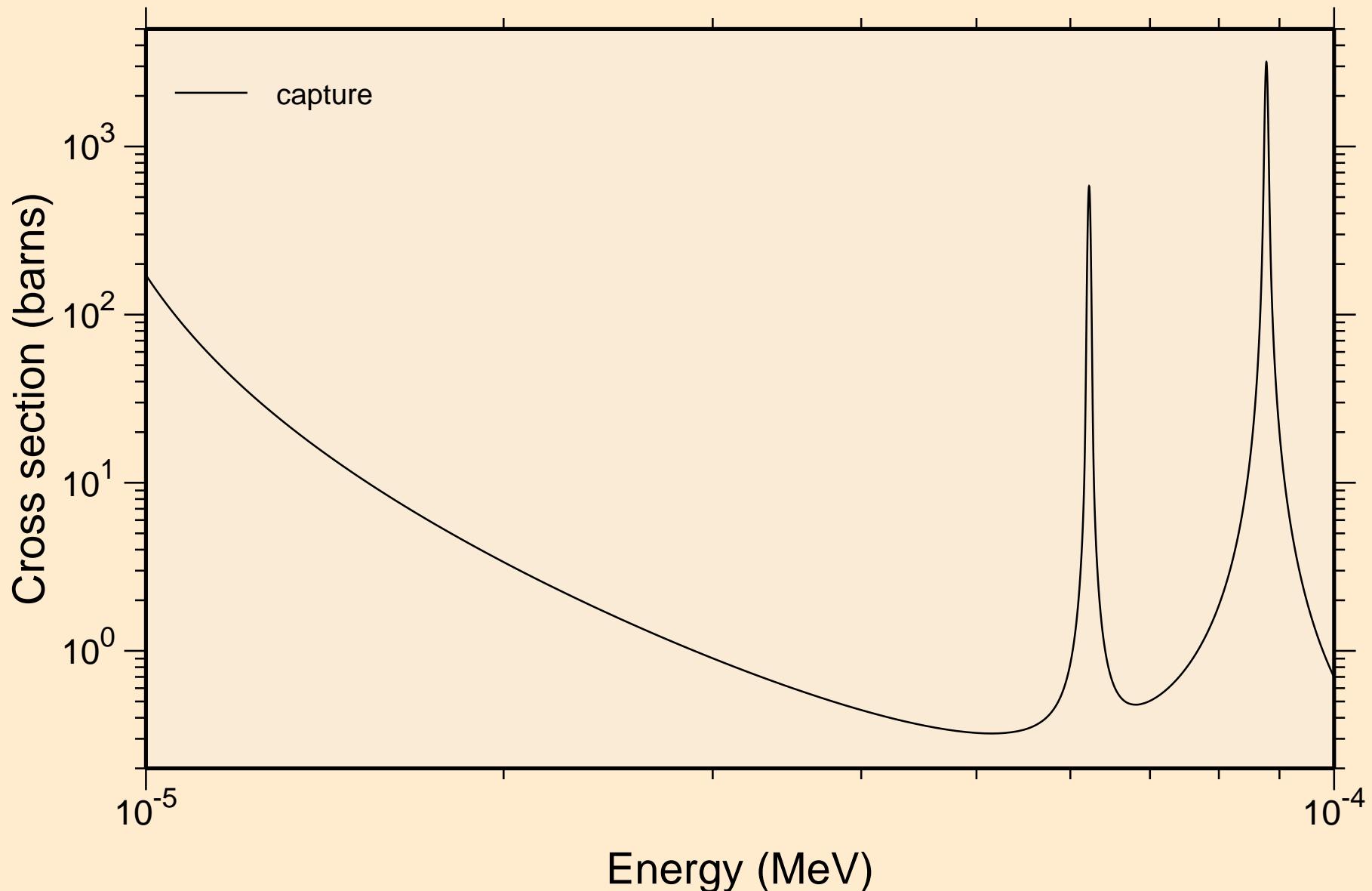
# ADVANCE CALCULATIONS

## resonance absorption cross sections



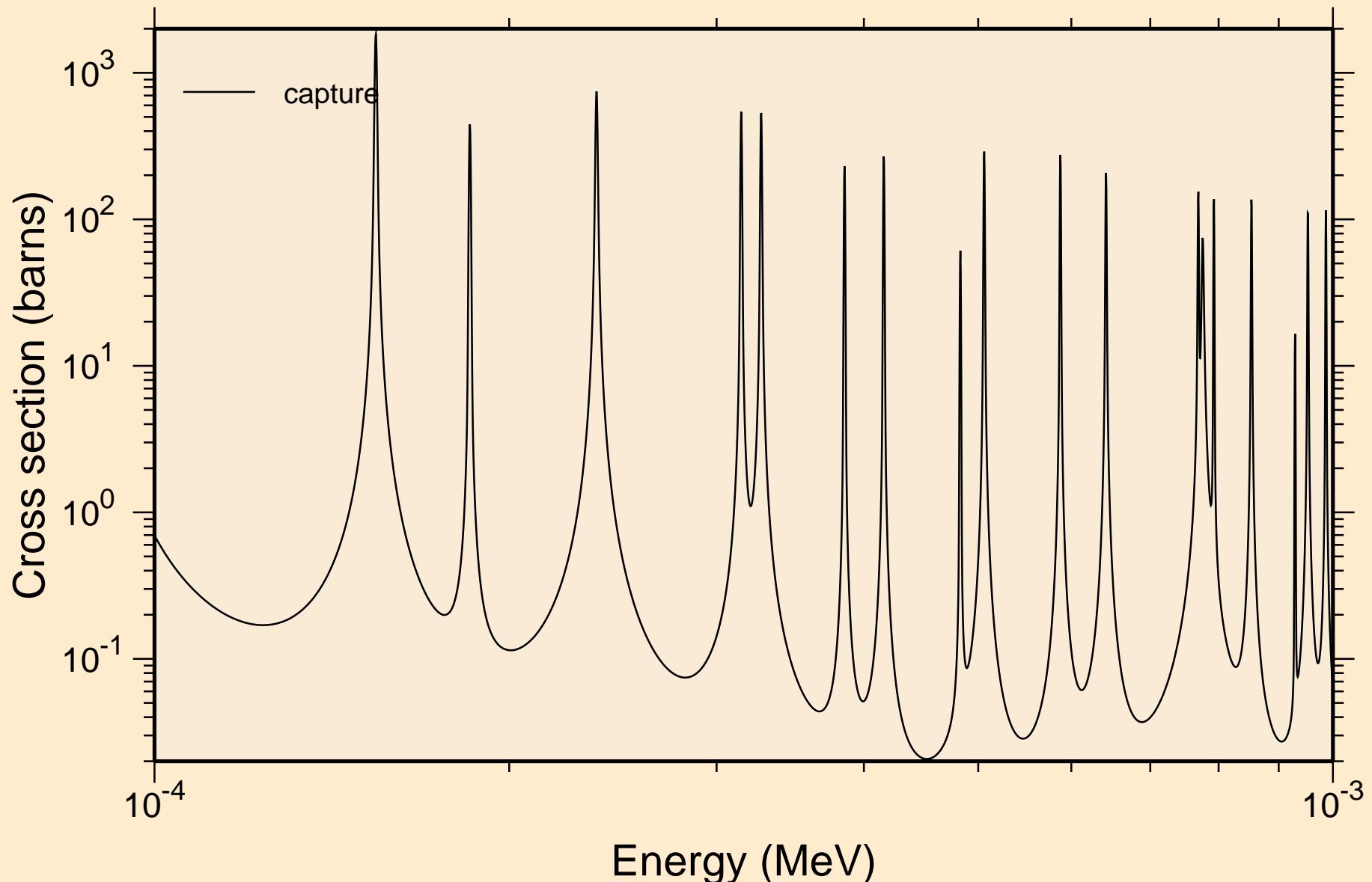
# ADVANCE CALCULATIONS

## resonance absorption cross sections



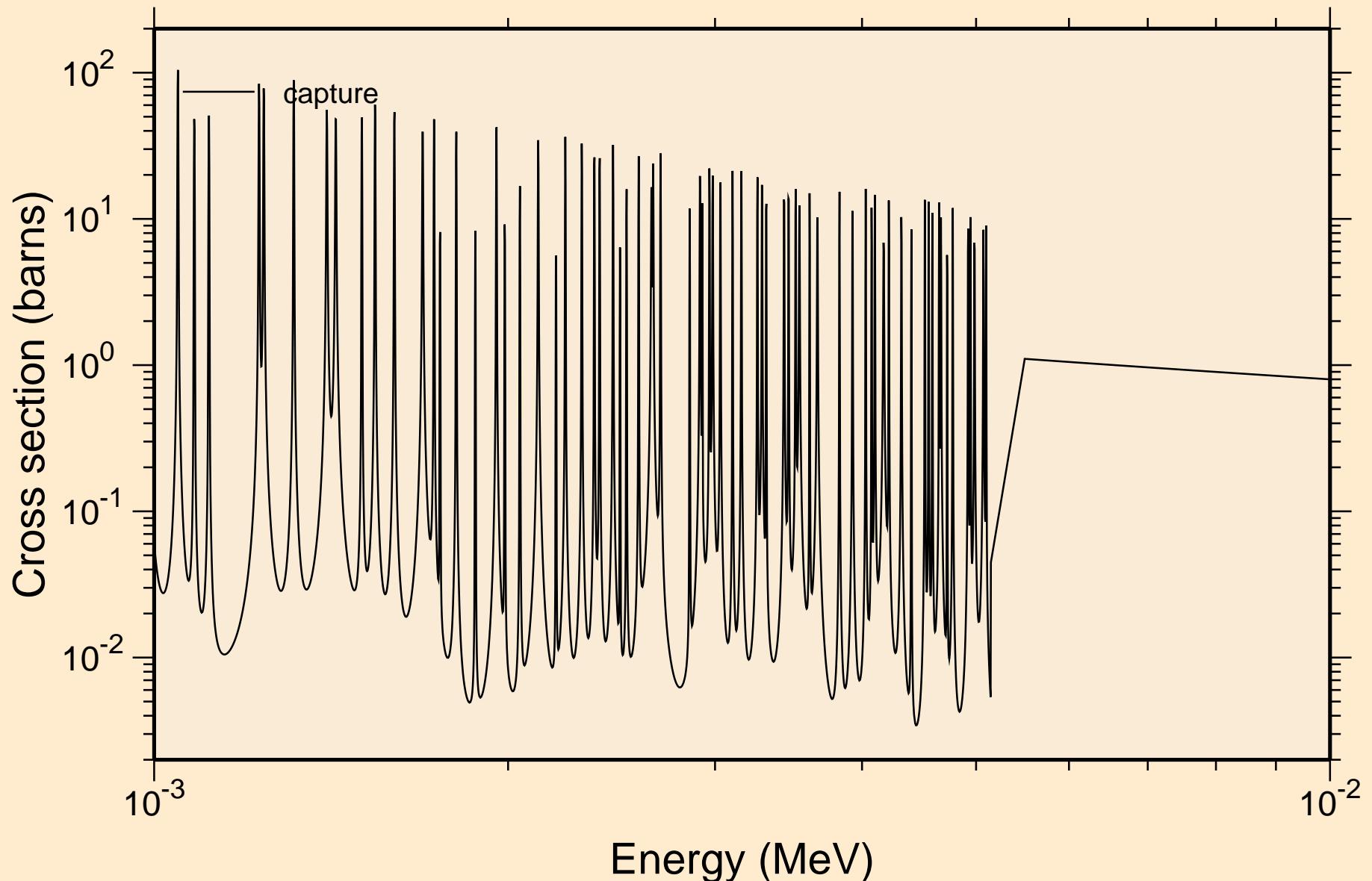
# ADVANCE CALCULATIONS

## resonance absorption cross sections



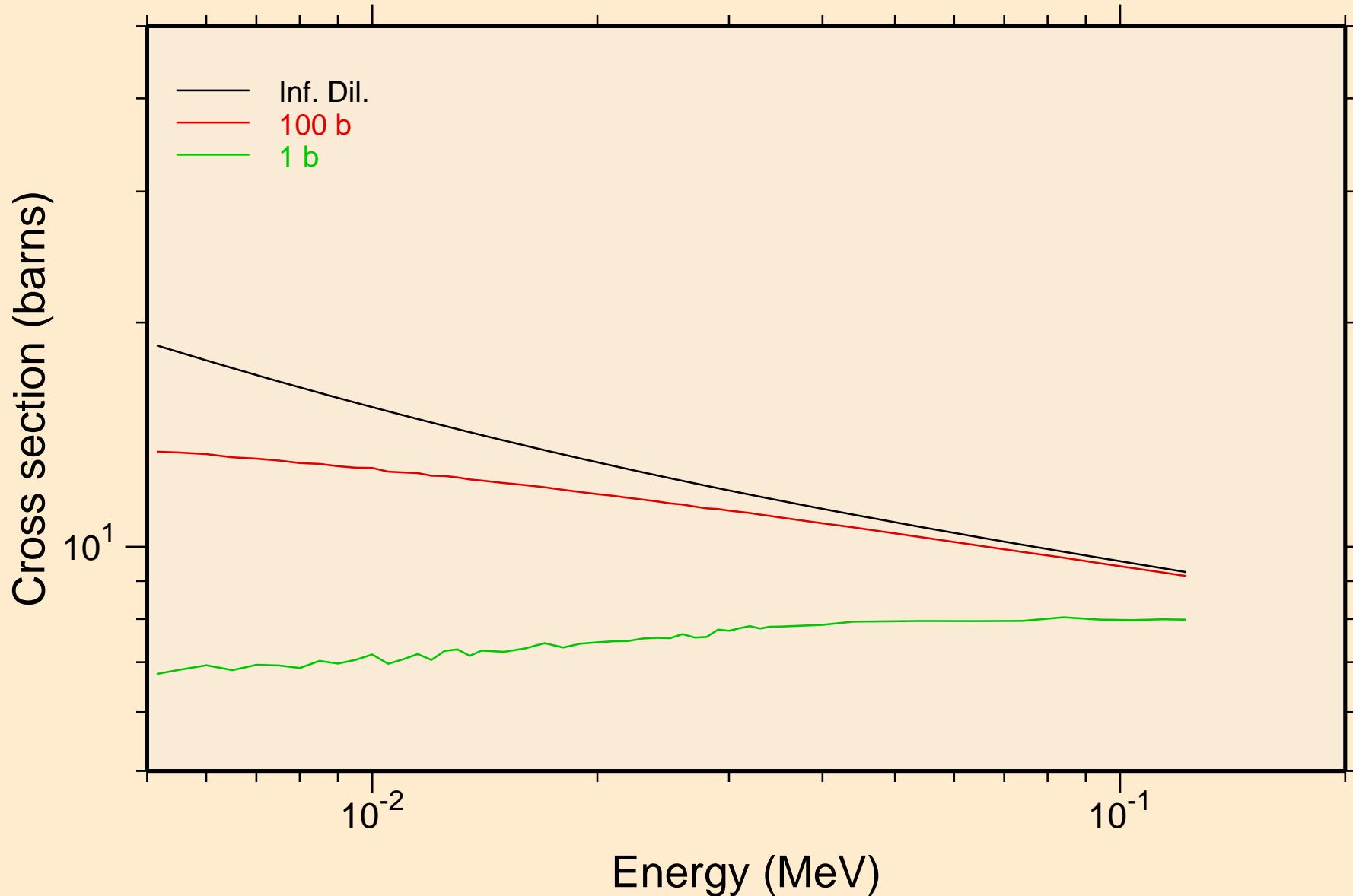
# ADVANCE CALCULATIONS

## resonance absorption cross sections



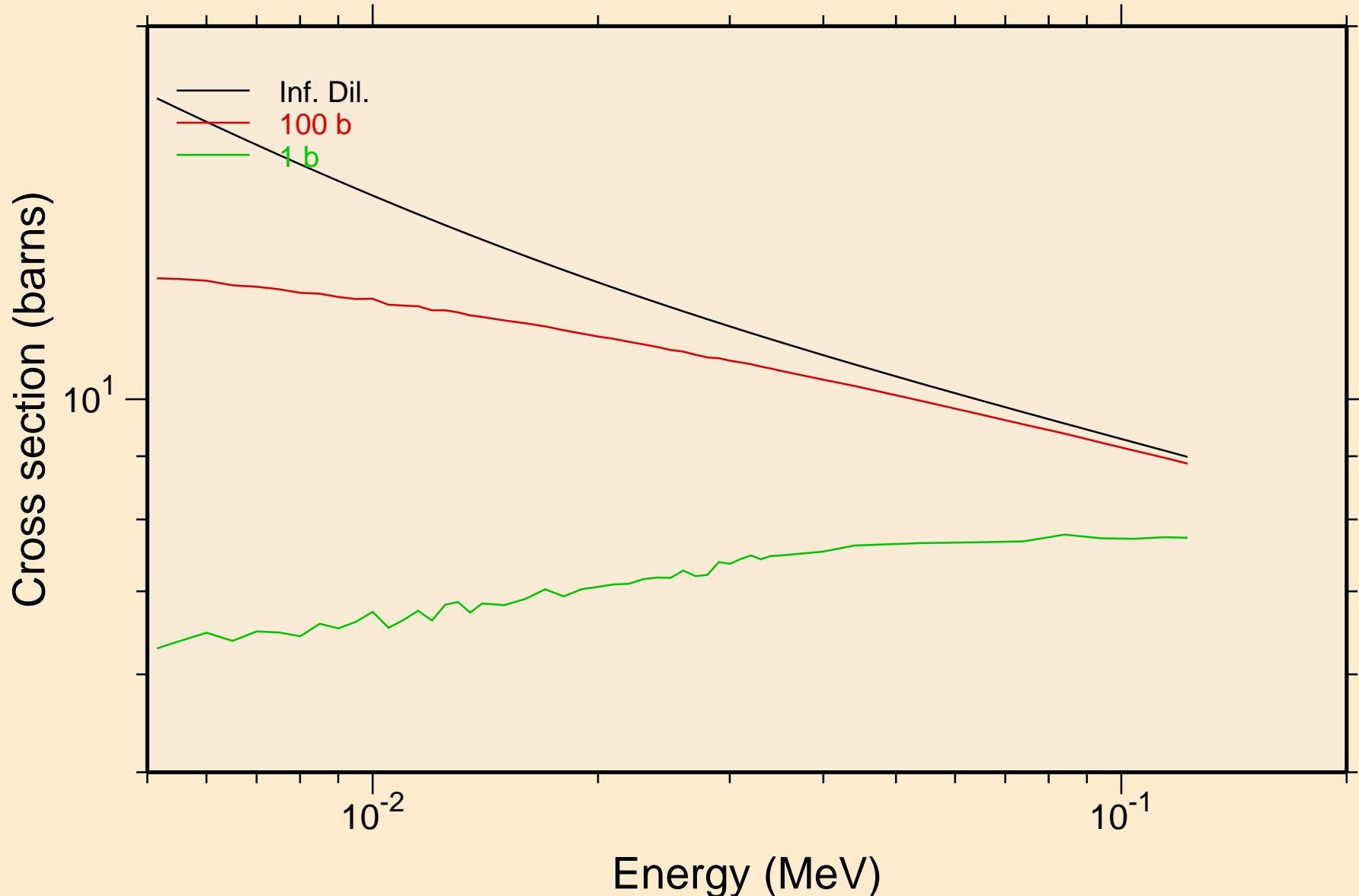
# ADVANCE CALCULATIONS

## UR total cross section



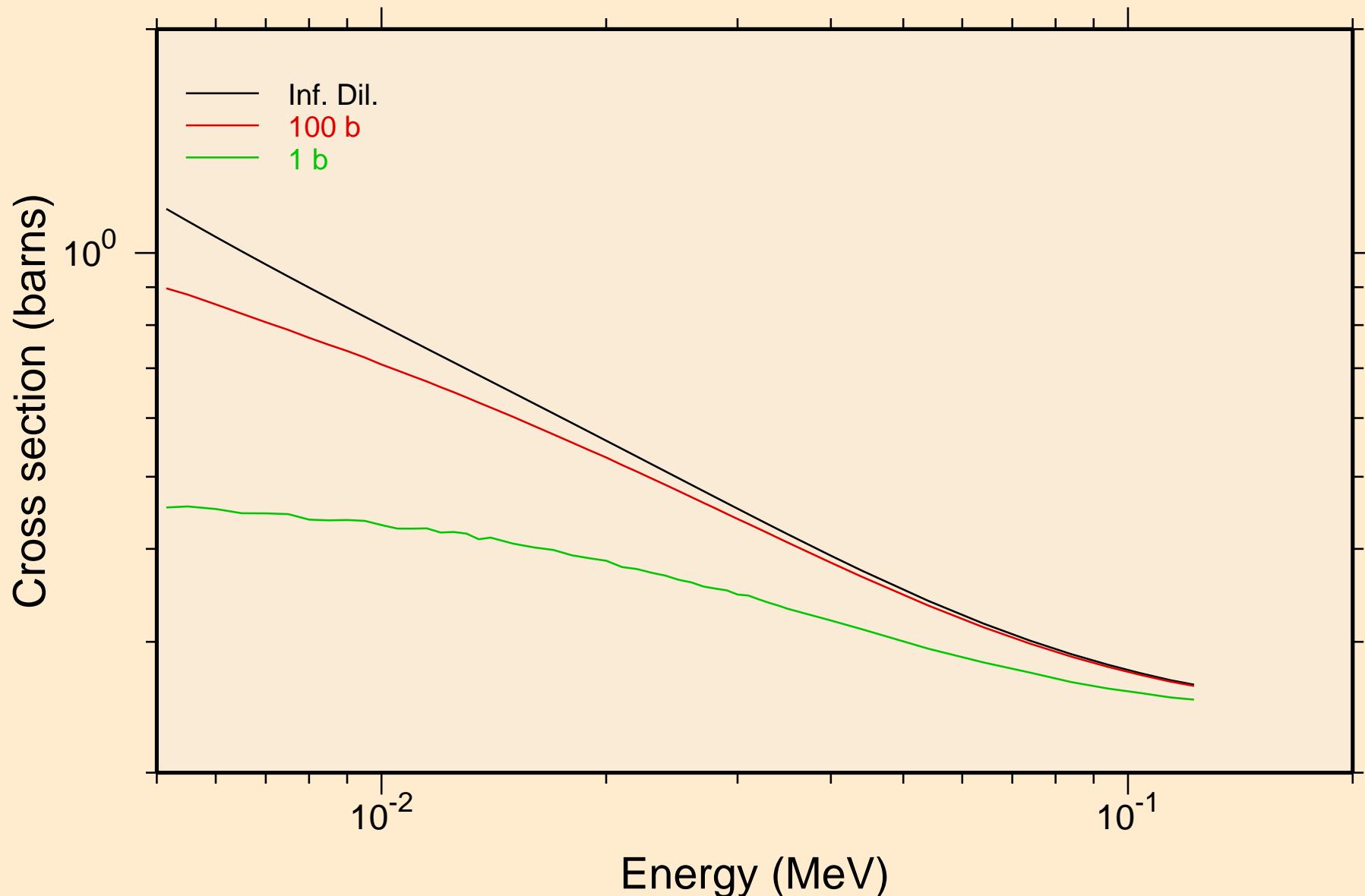
# ADVANCE CALCULATIONS

## UR elastic cross section



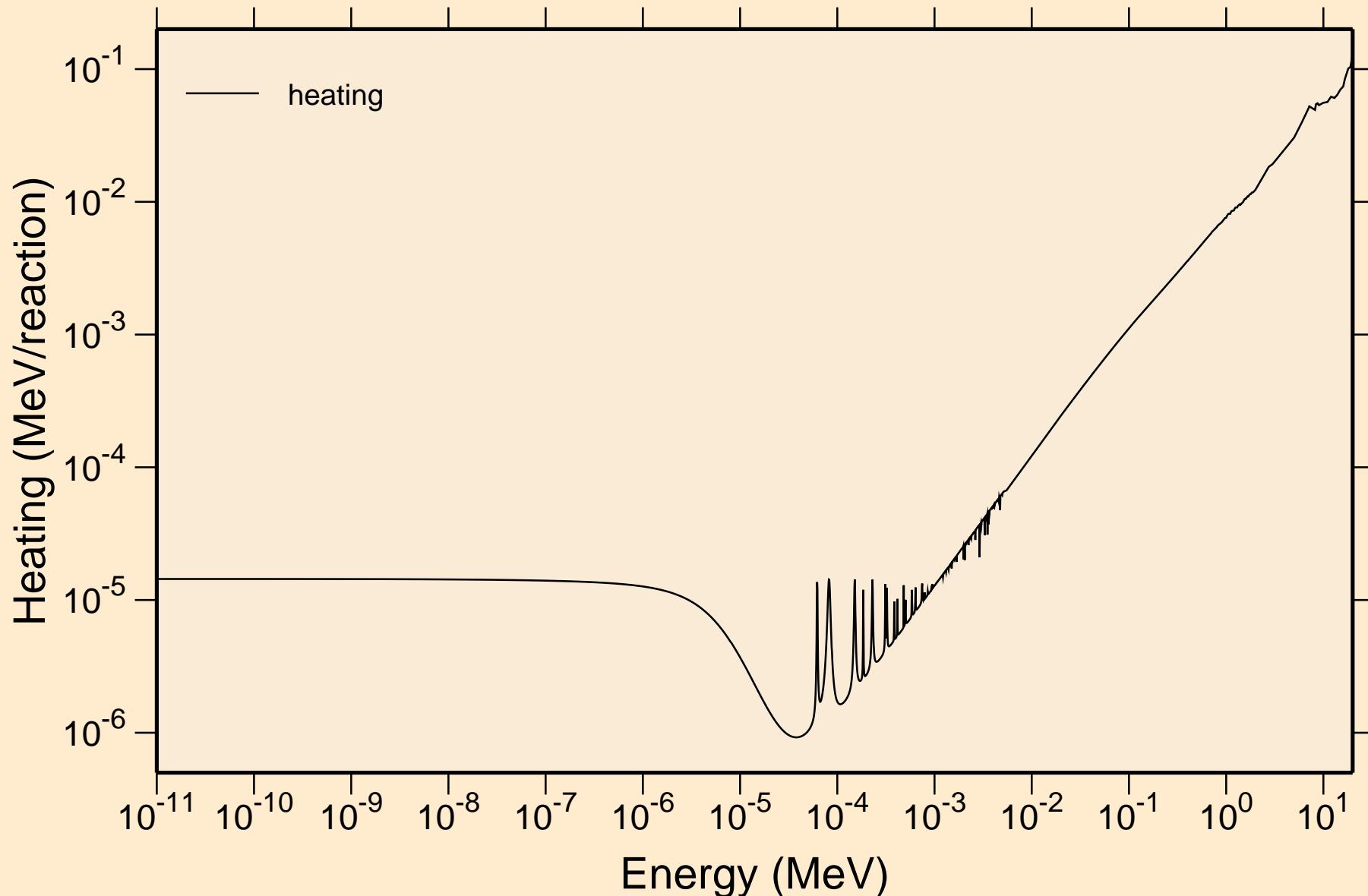
# ADVANCE CALCULATIONS

## UR capture cross section



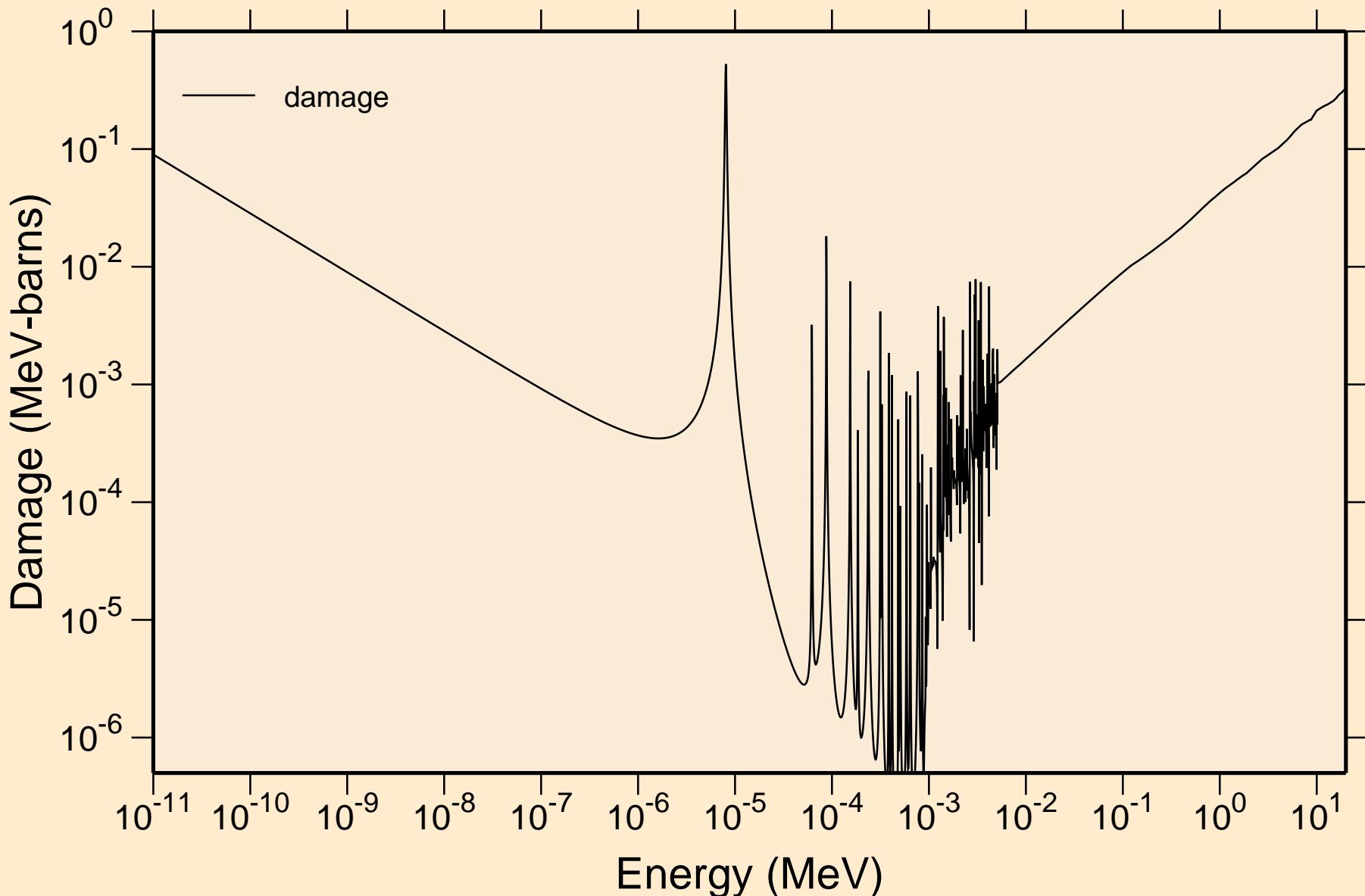
# ADVANCE CALCULATIONS

## Heating



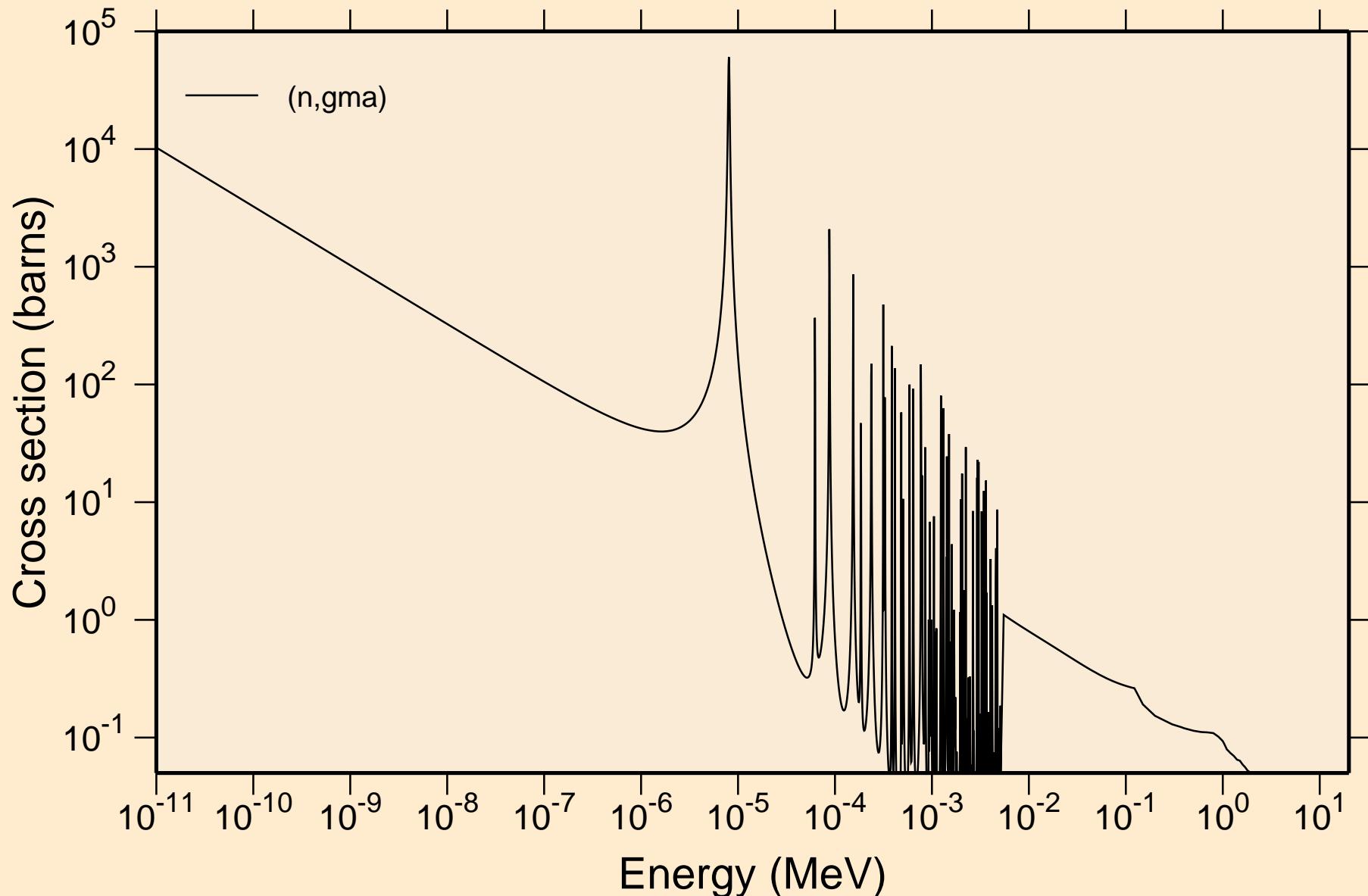
# ADVANCE CALCULATIONS

## Damage



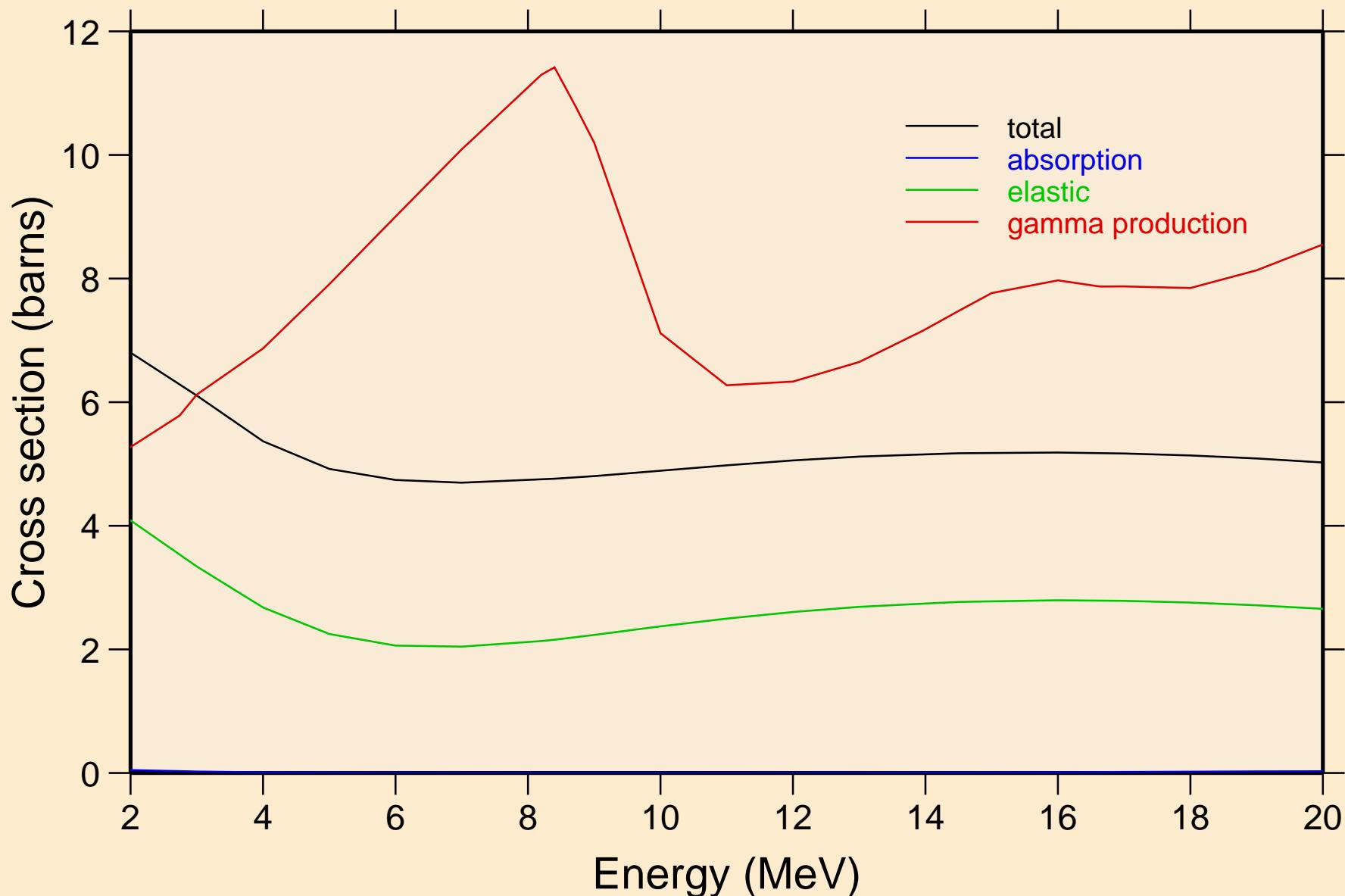
# ADVANCE CALCULATIONS

## Non-threshold reactions



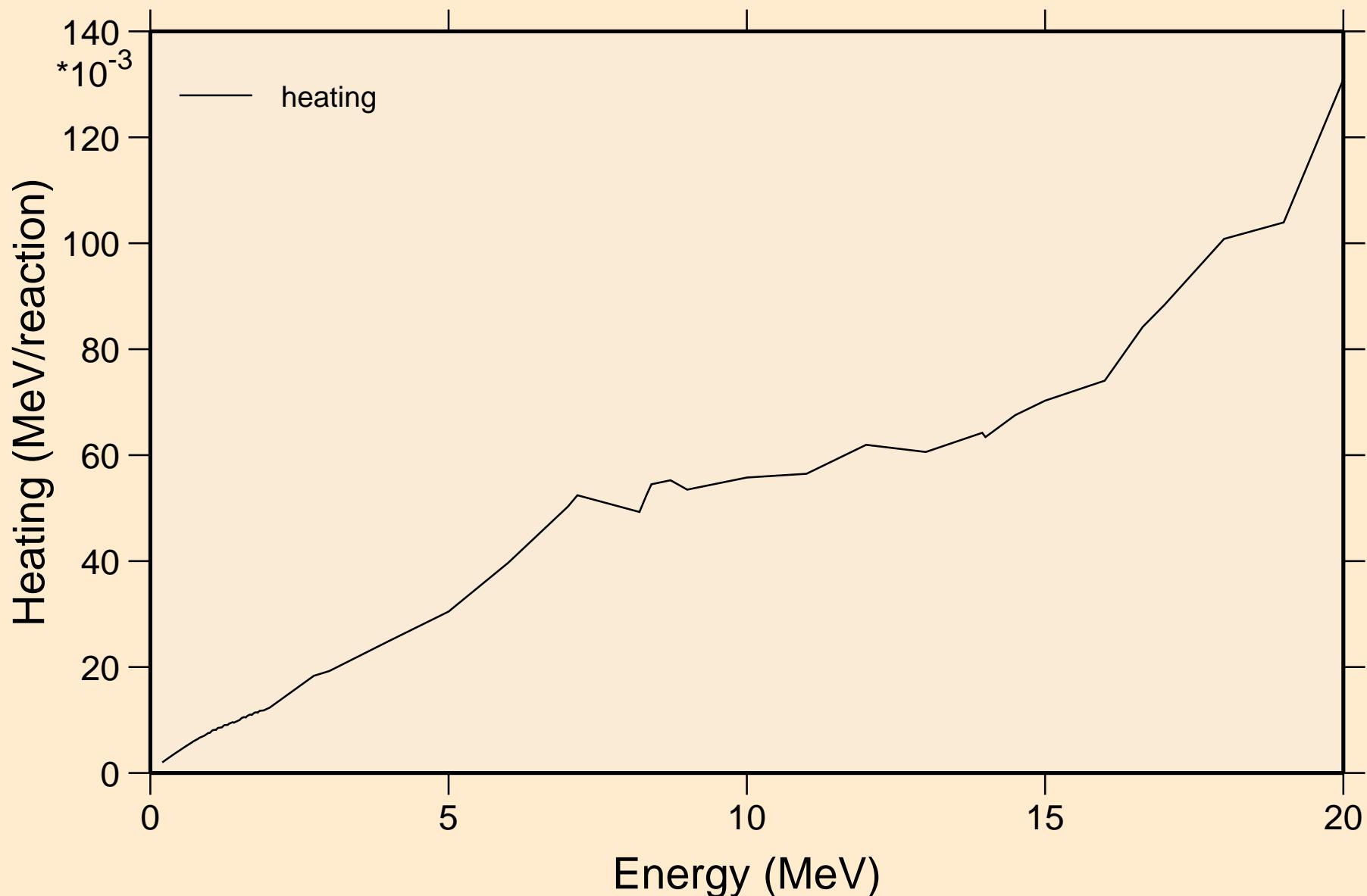
# ADVANCE CALCULATIONS

## Principal cross sections



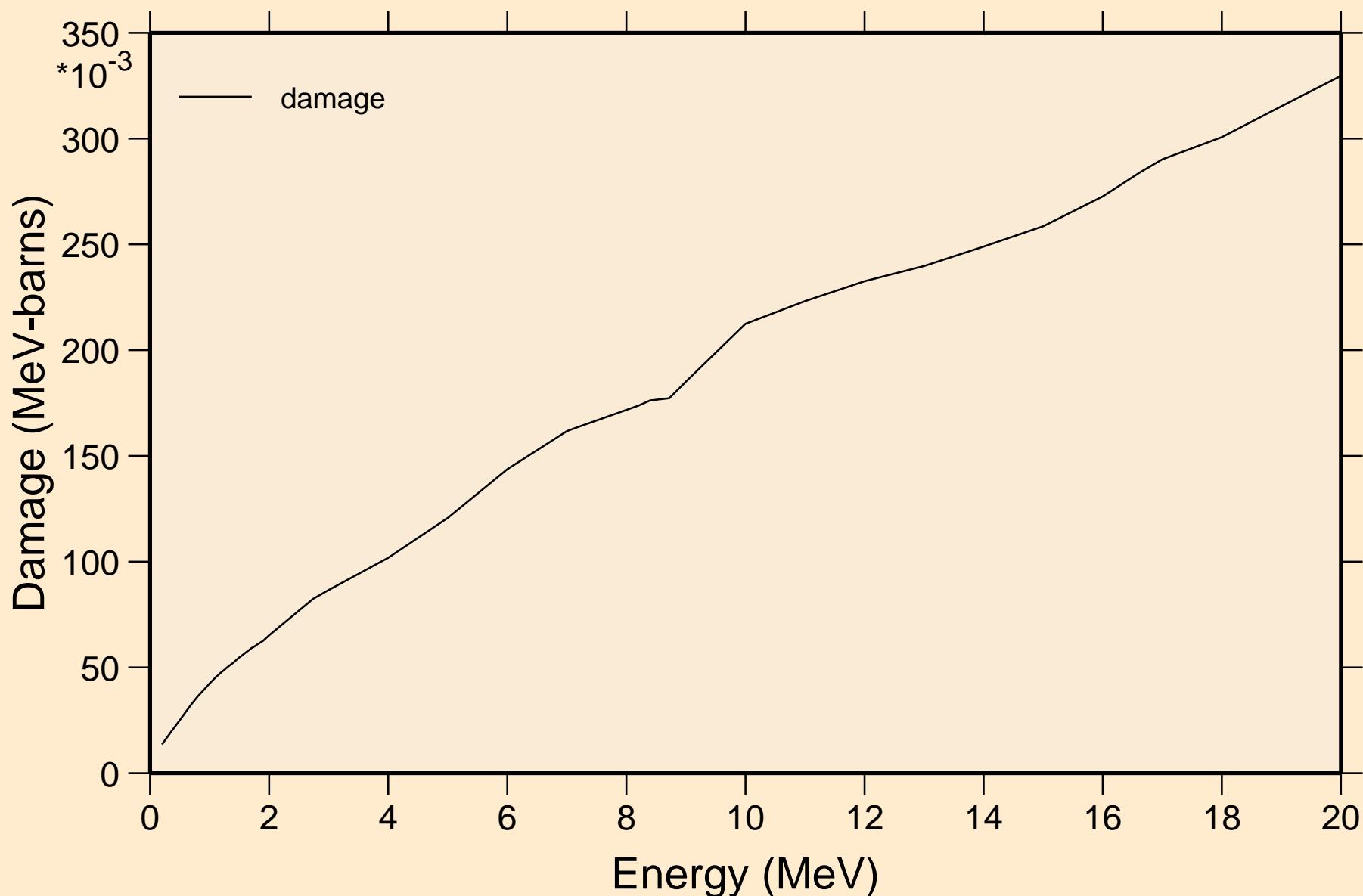
# ADVANCE CALCULATIONS

## Heating



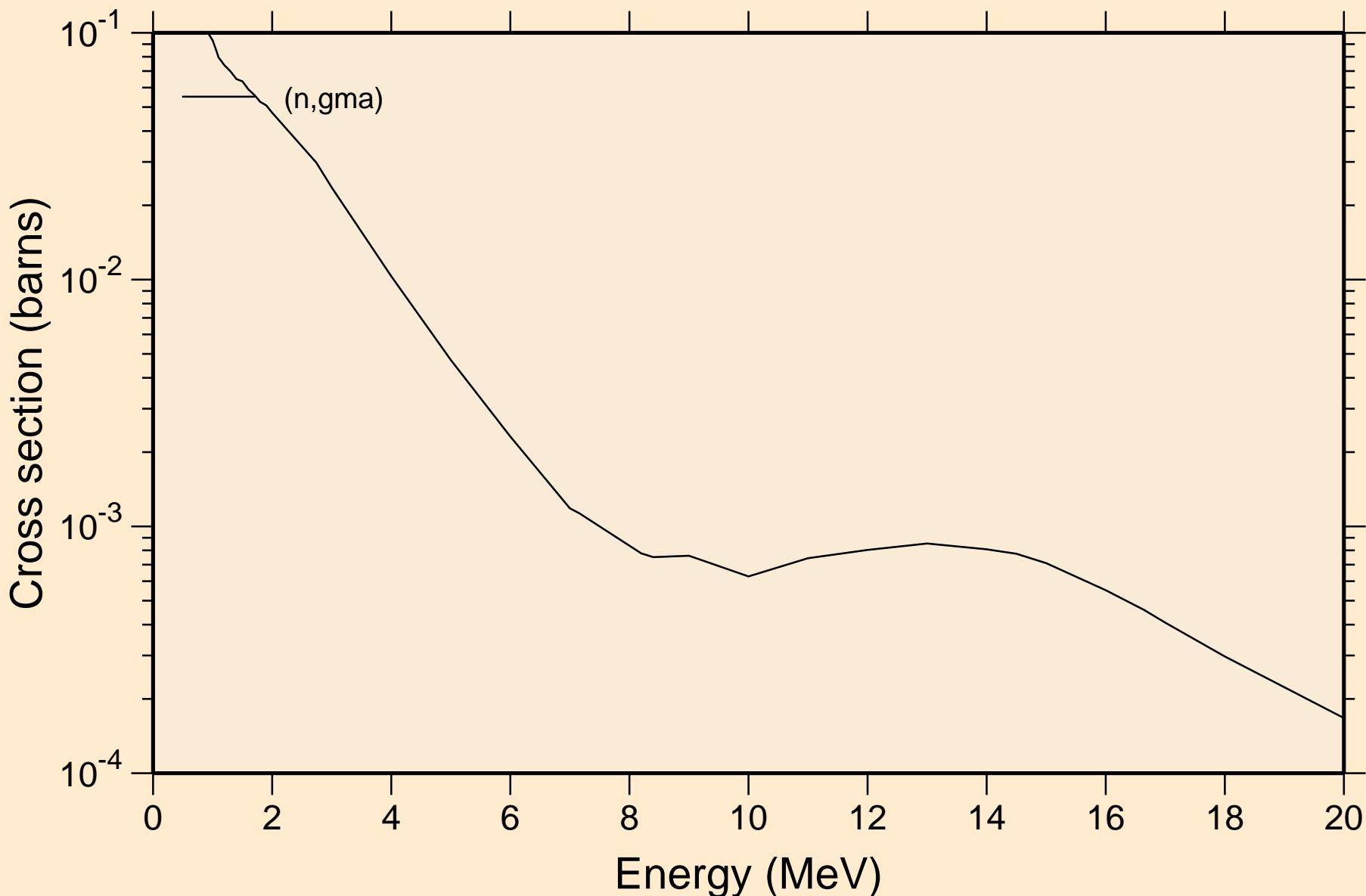
# ADVANCE CALCULATIONS

## Damage



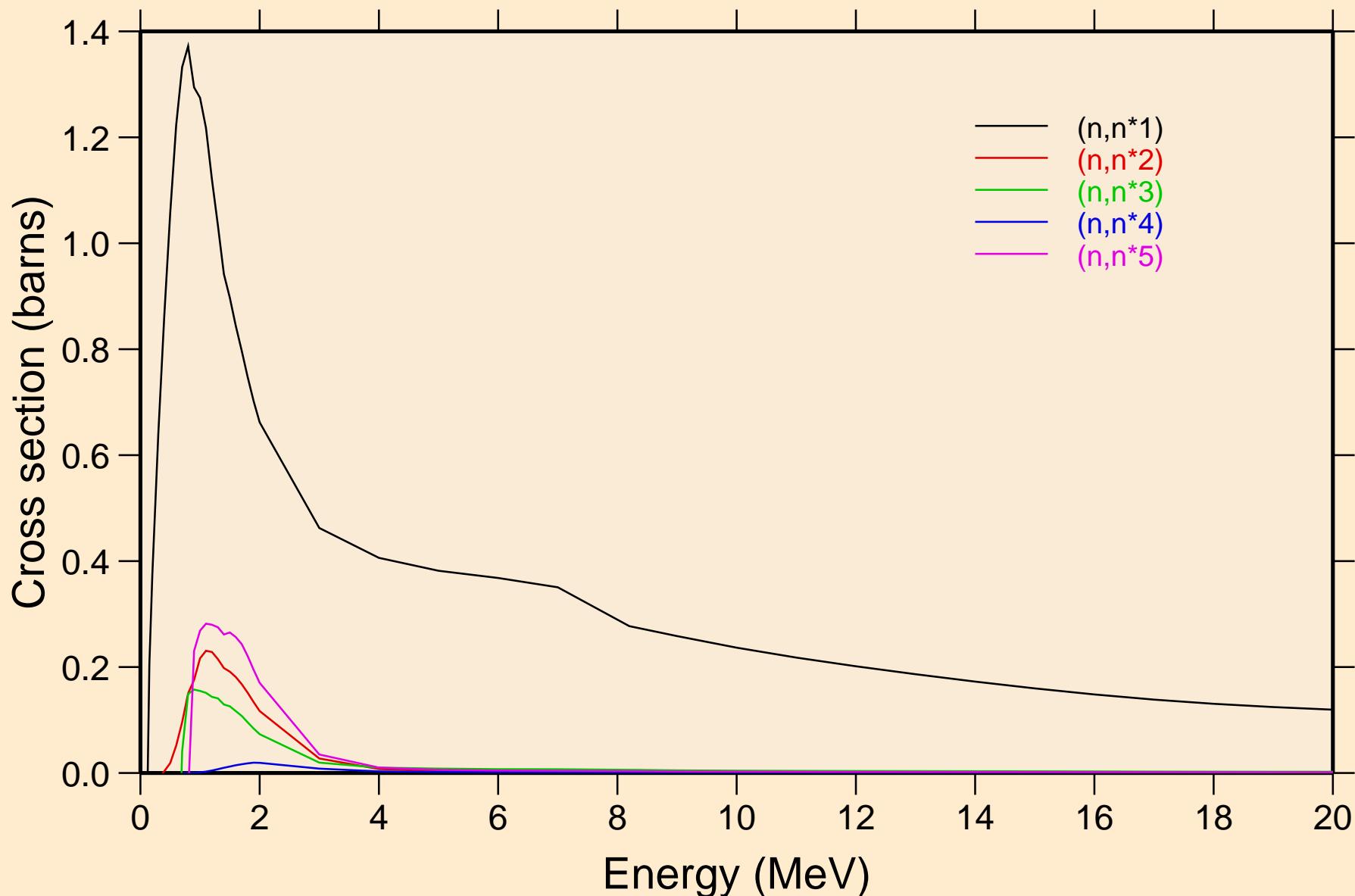
# ADVANCE CALCULATIONS

## Non-threshold reactions



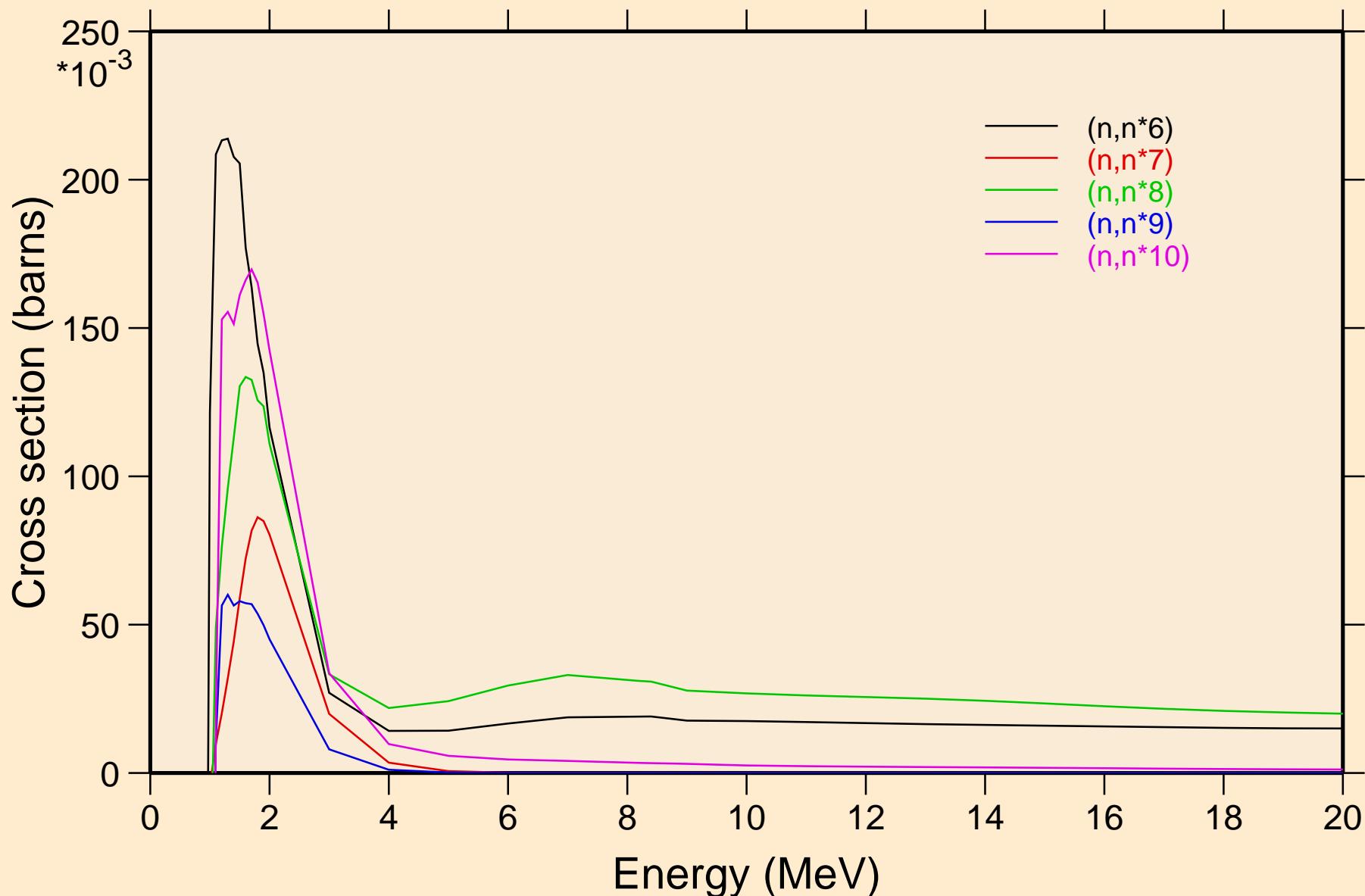
# ADVANCE CALCULATIONS

## Inelastic levels



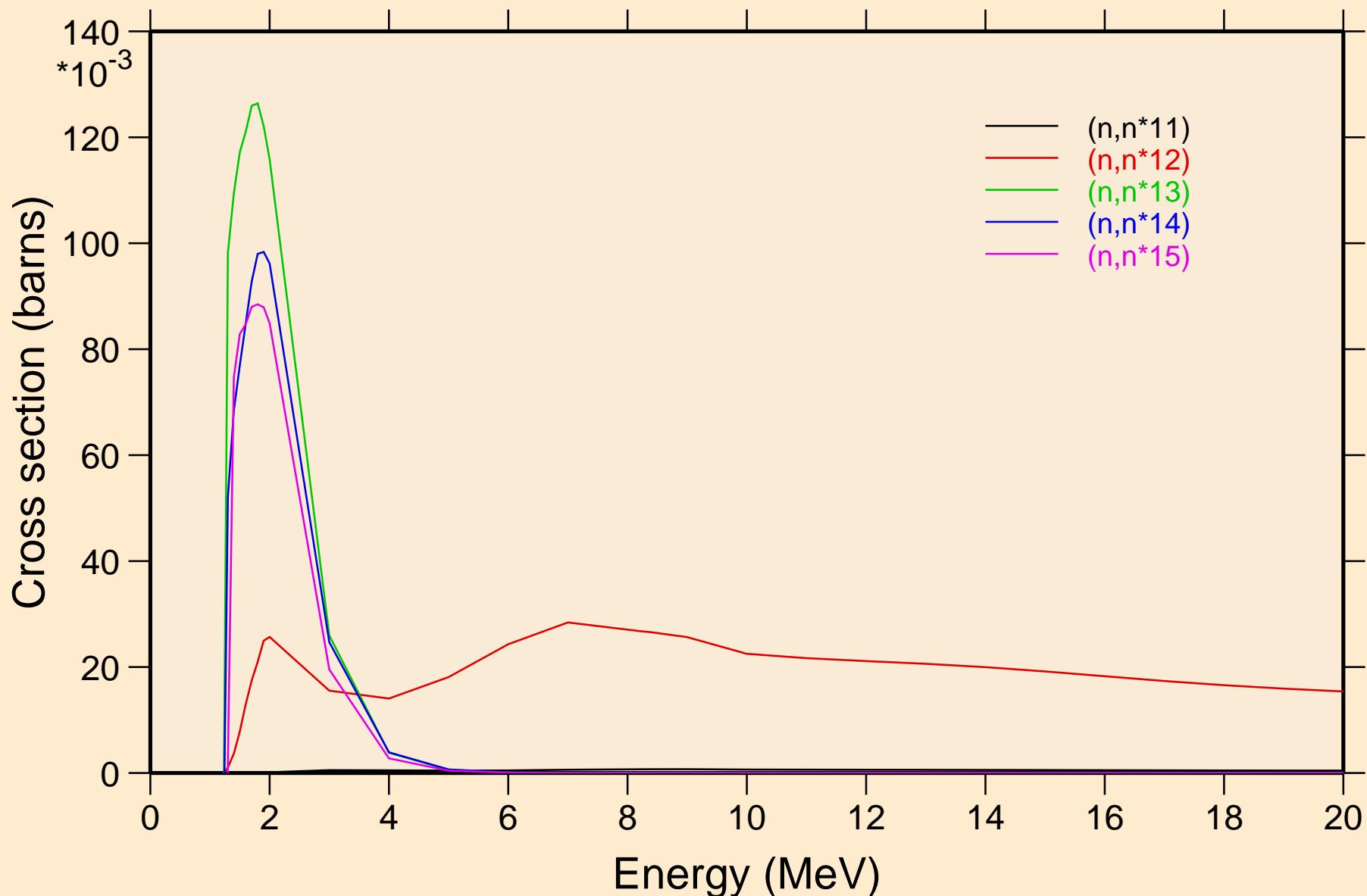
# ADVANCE CALCULATIONS

## Inelastic levels



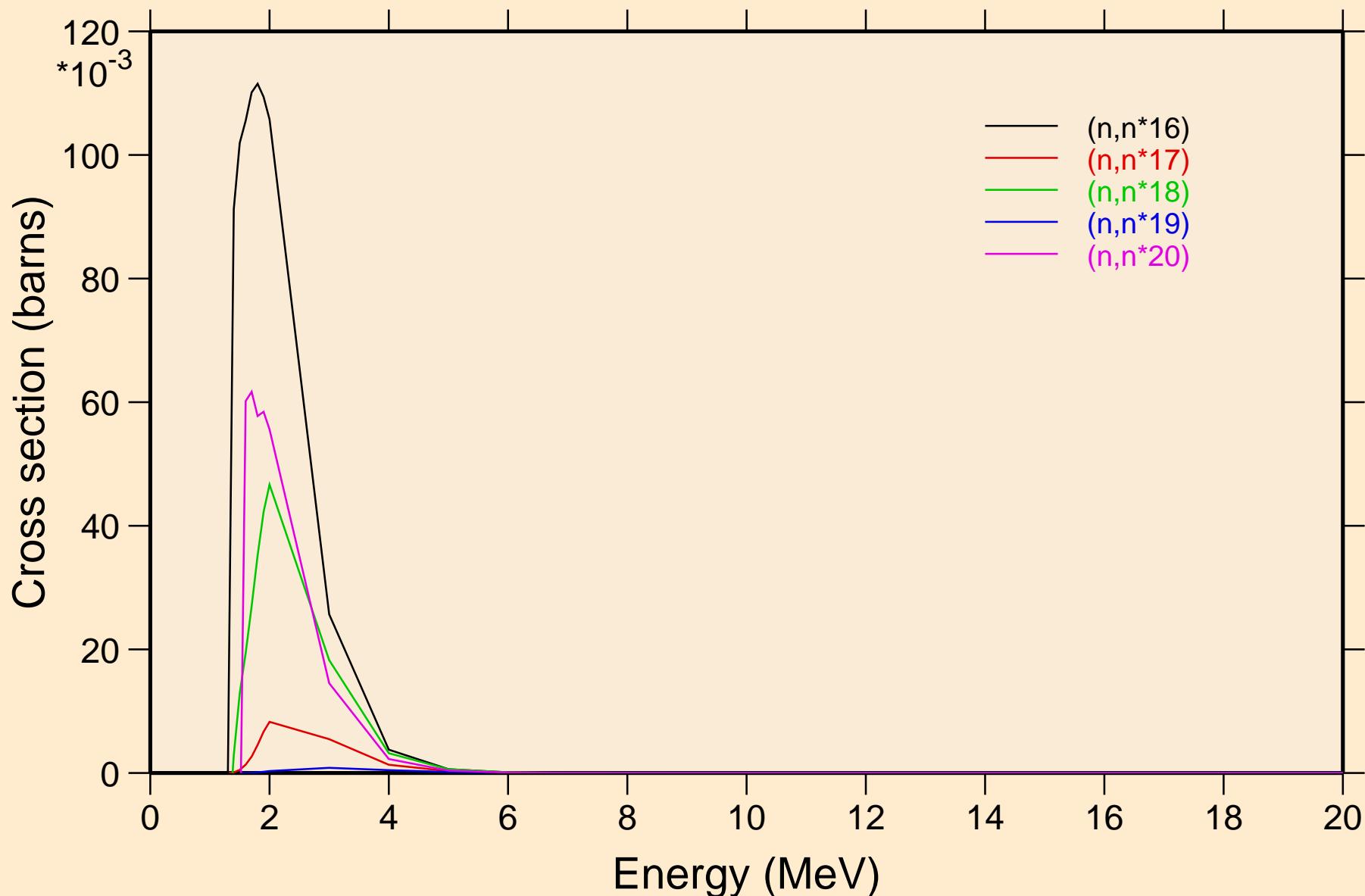
# ADVANCE CALCULATIONS

## Inelastic levels



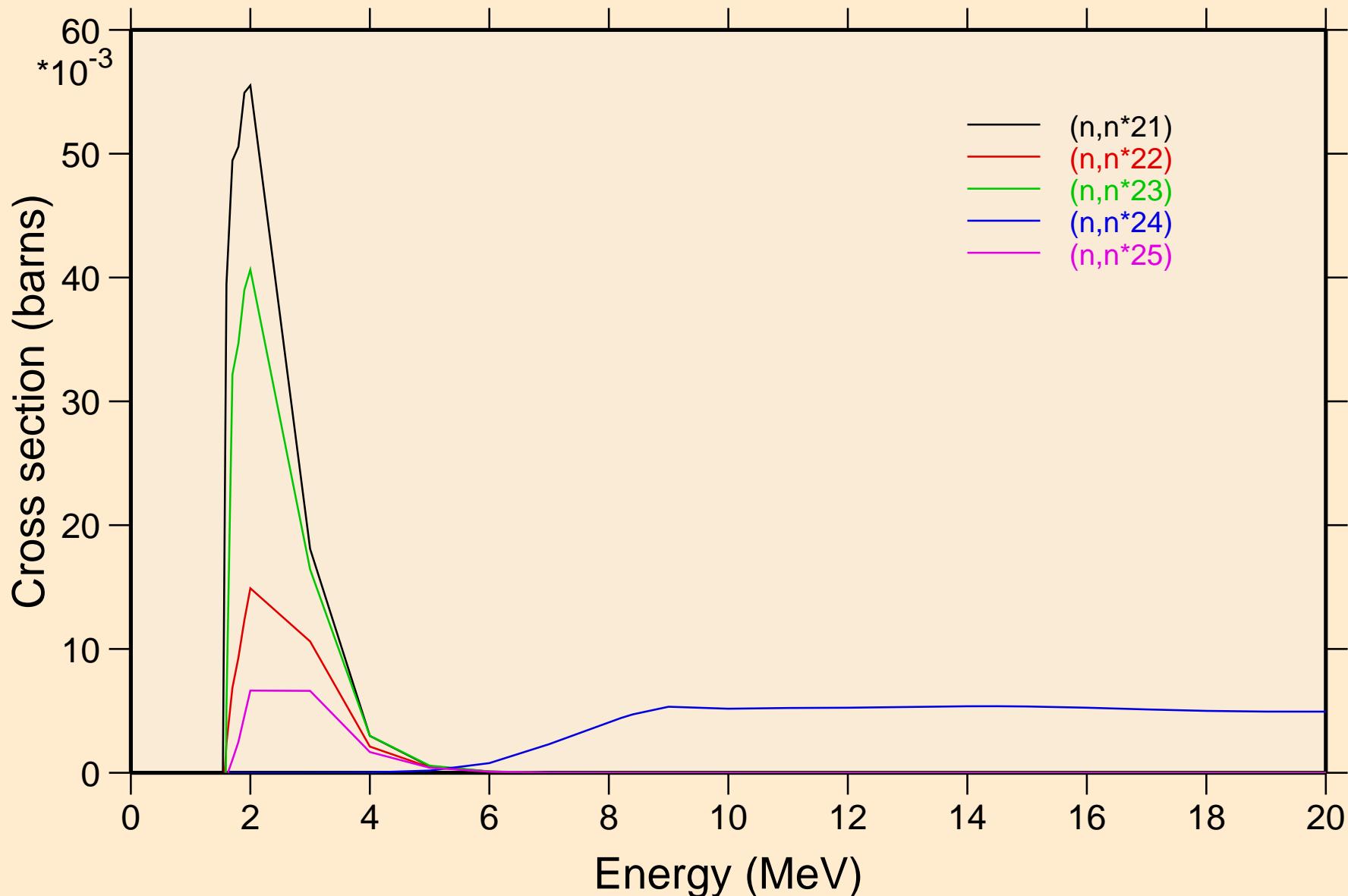
# ADVANCE CALCULATIONS

## Inelastic levels



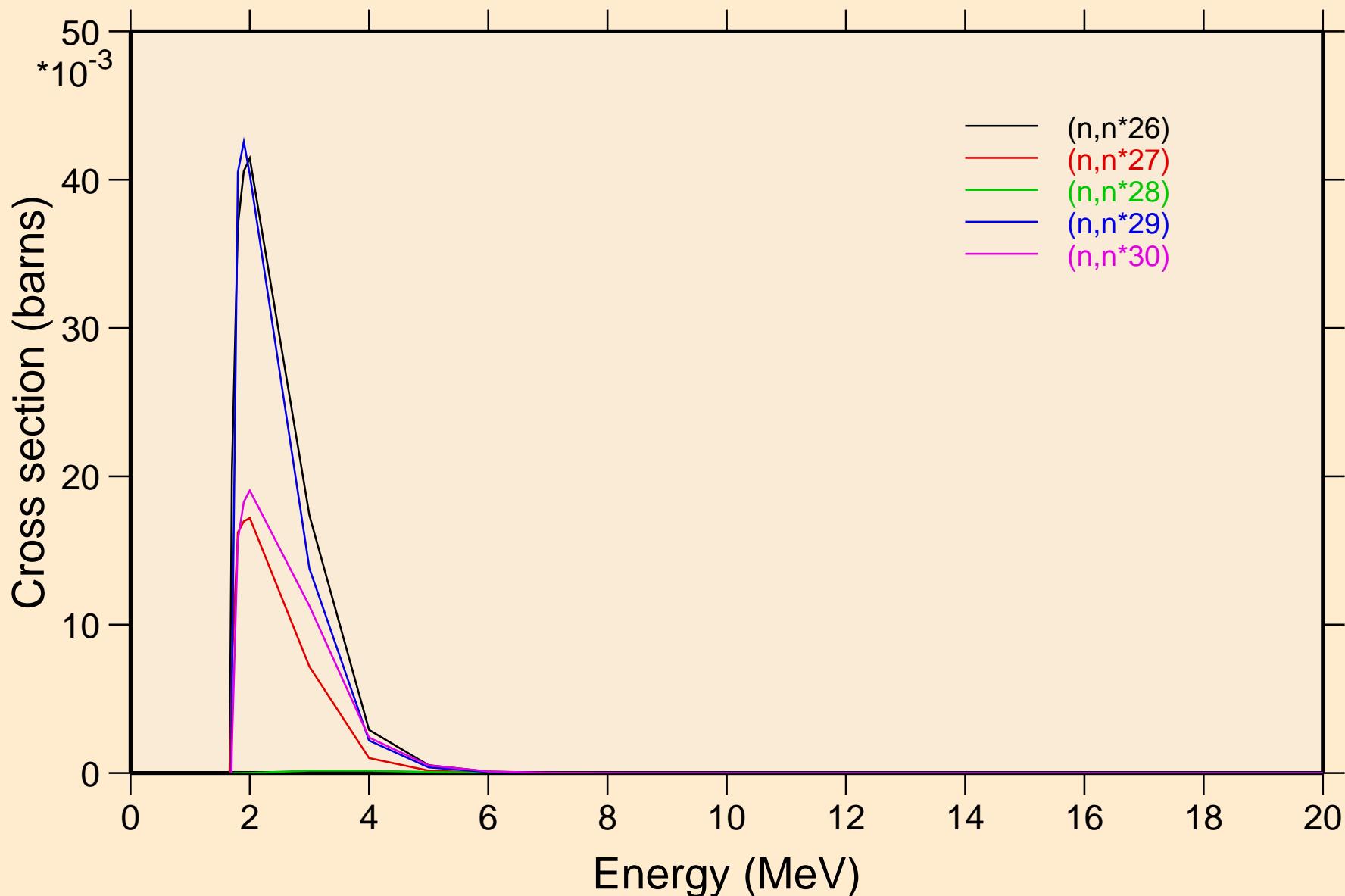
# ADVANCE CALCULATIONS

## Inelastic levels



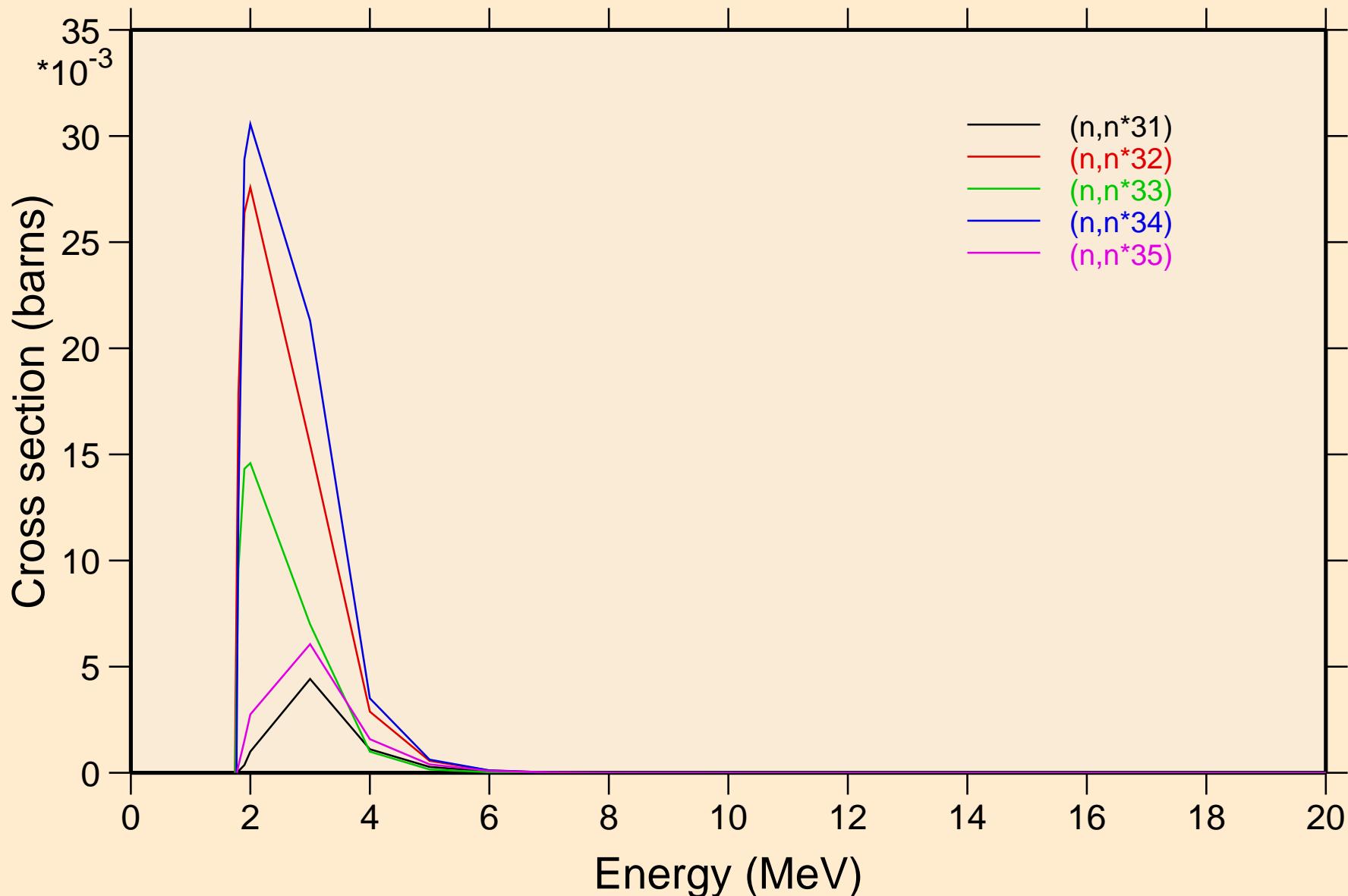
# ADVANCE CALCULATIONS

## Inelastic levels



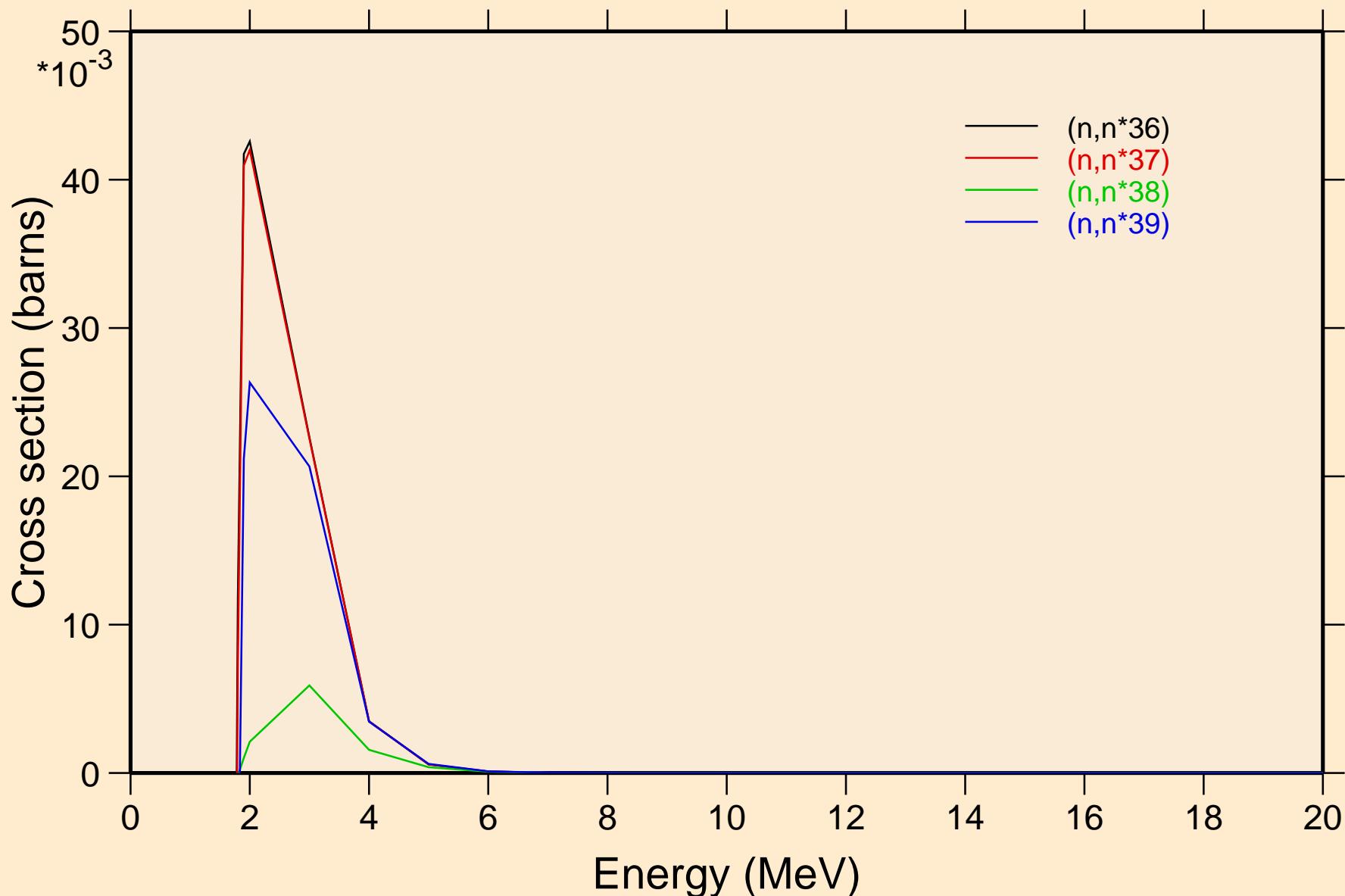
# ADVANCE CALCULATIONS

## Inelastic levels



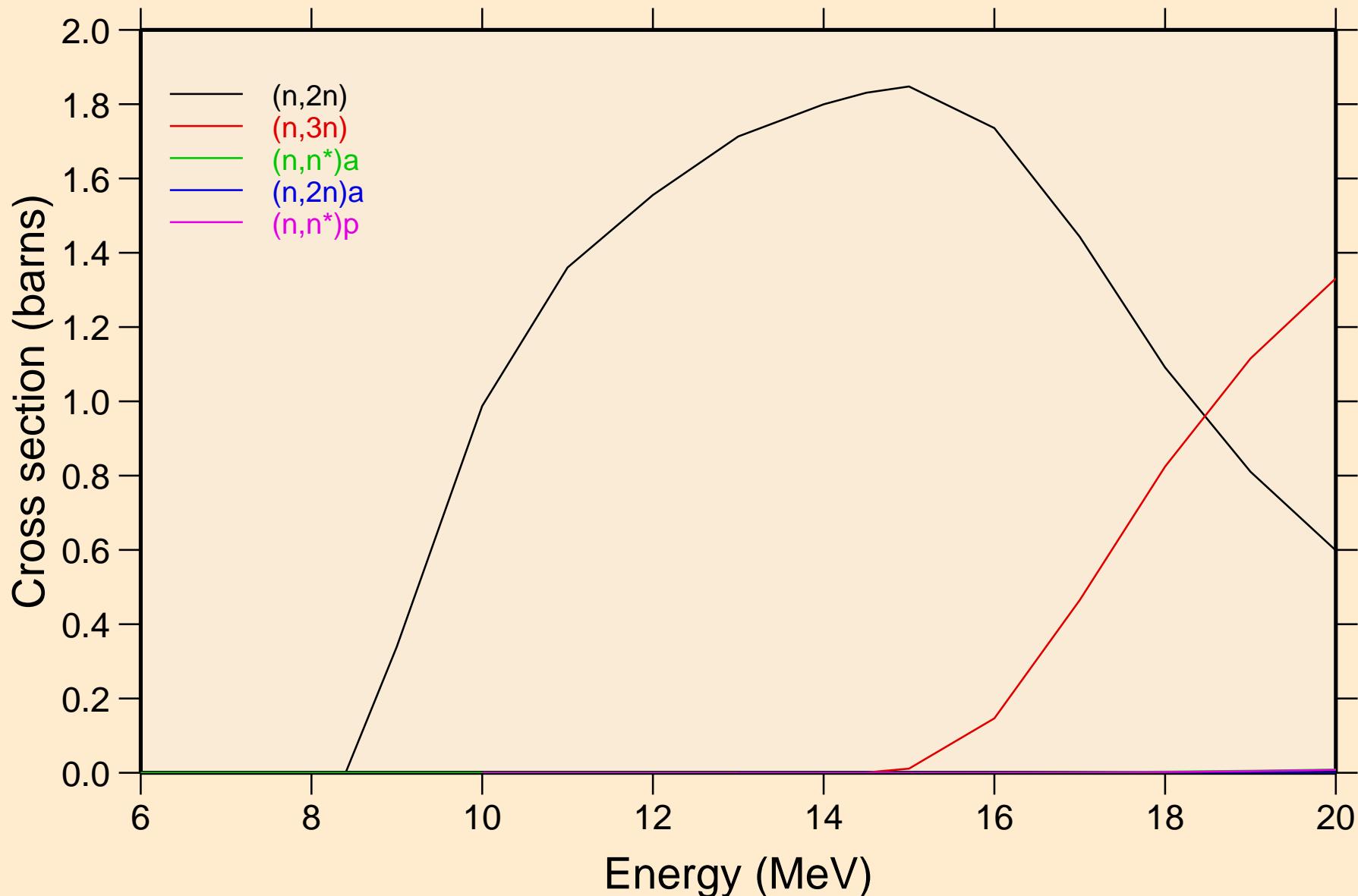
# ADVANCE CALCULATIONS

## Inelastic levels



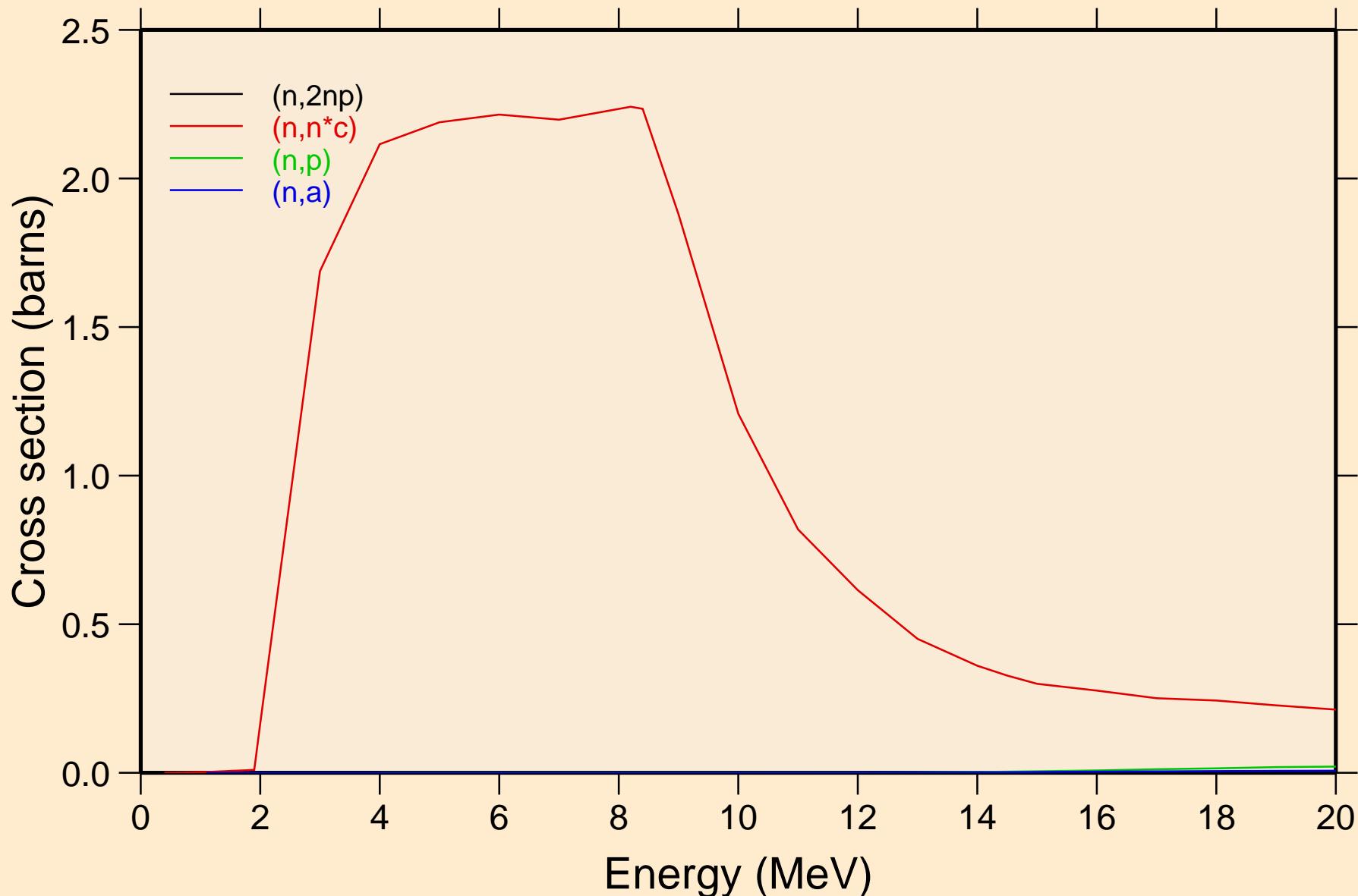
# ADVANCE CALCULATIONS

## Threshold reactions



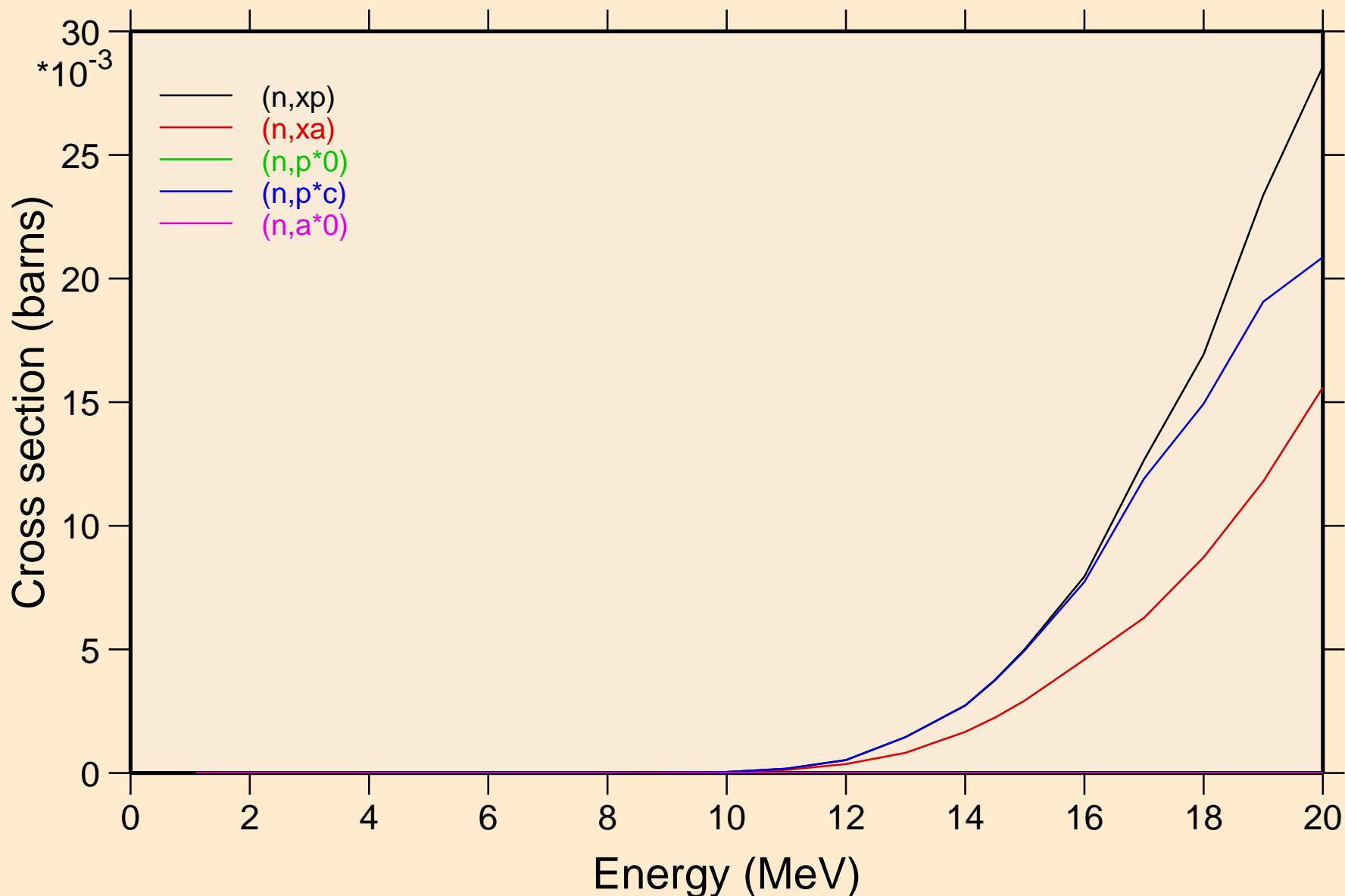
# ADVANCE CALCULATIONS

## Threshold reactions



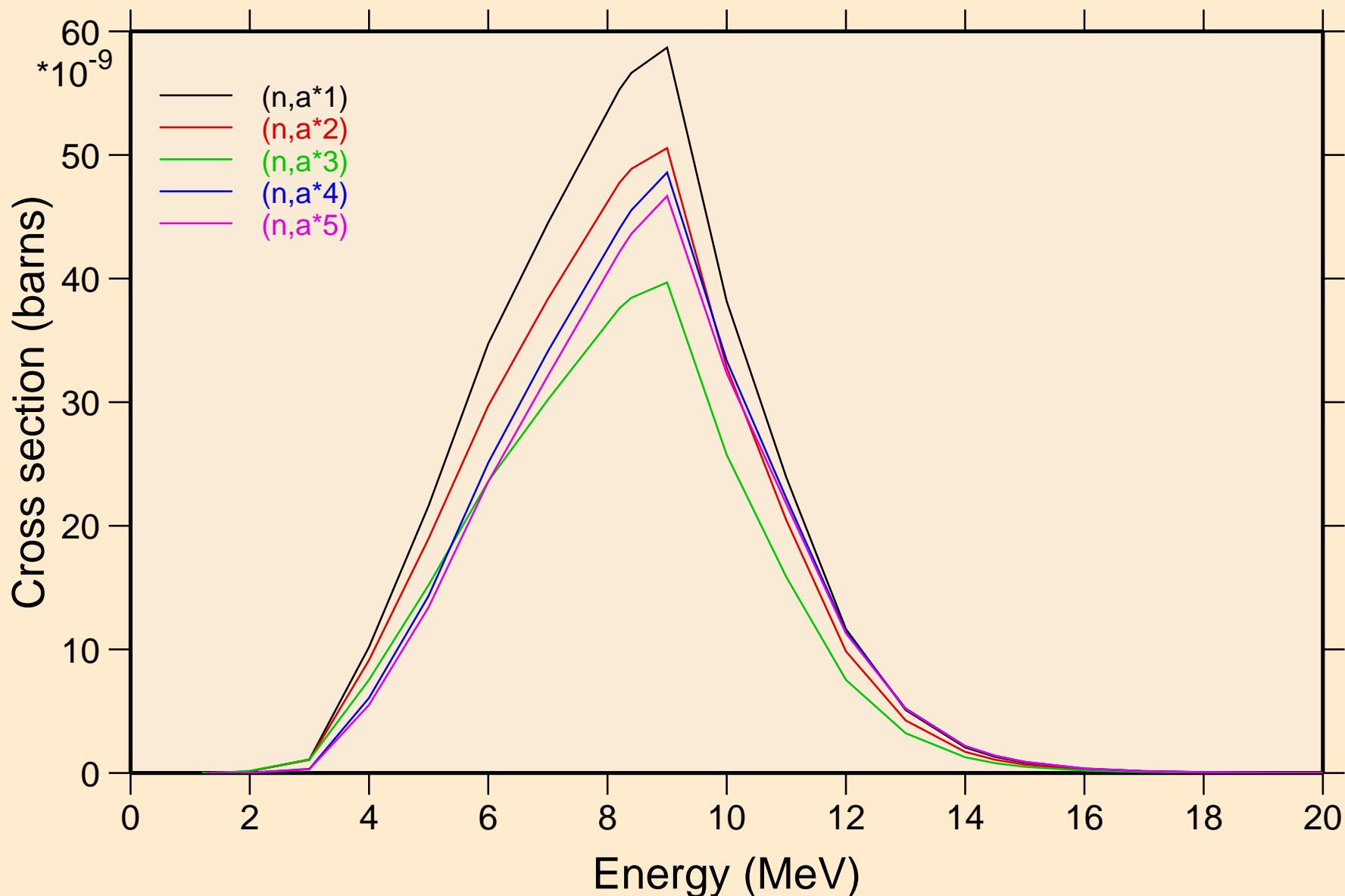
# ADVANCE CALCULATIONS

## Threshold reactions



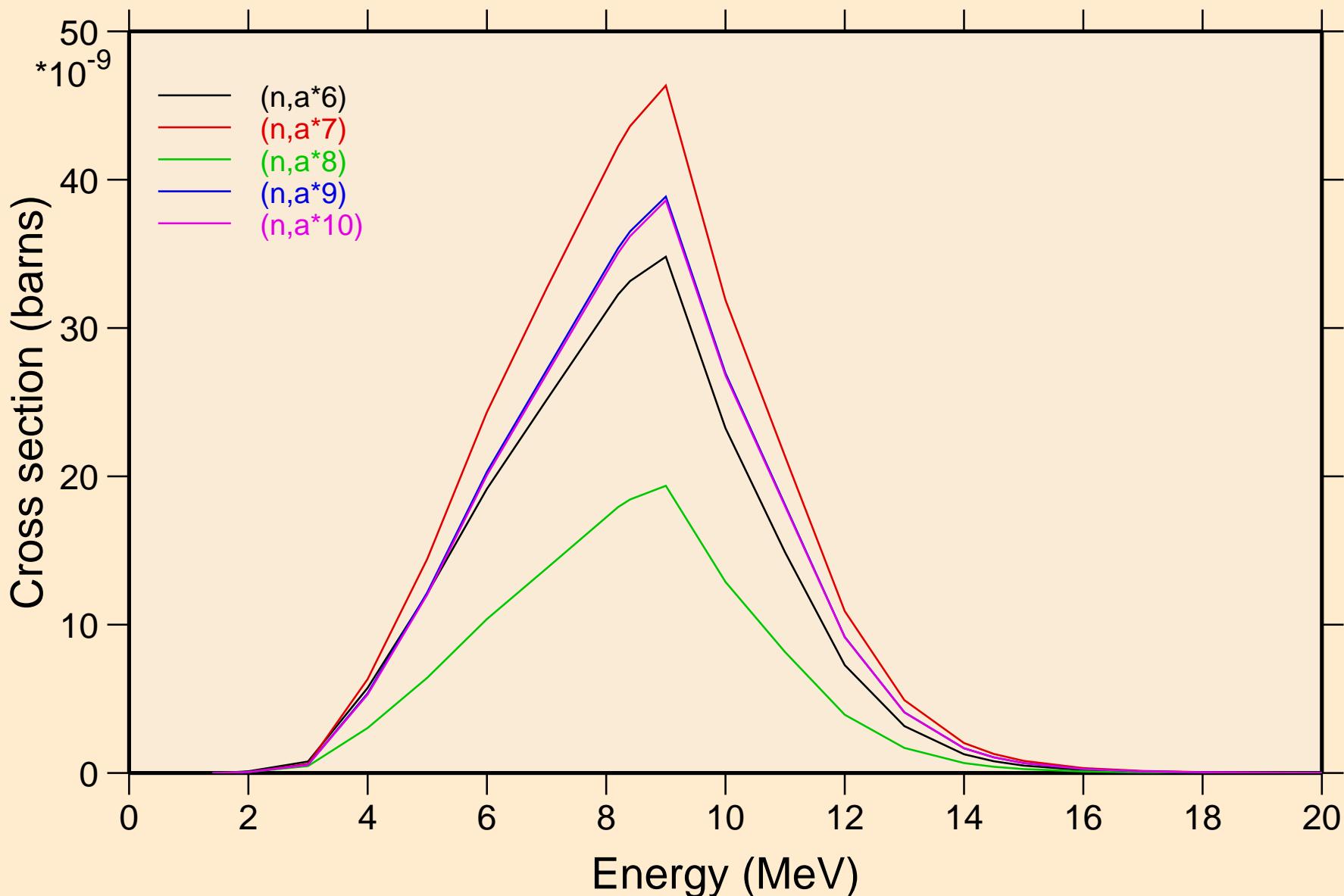
# ADVANCE CALCULATIONS

## Threshold reactions



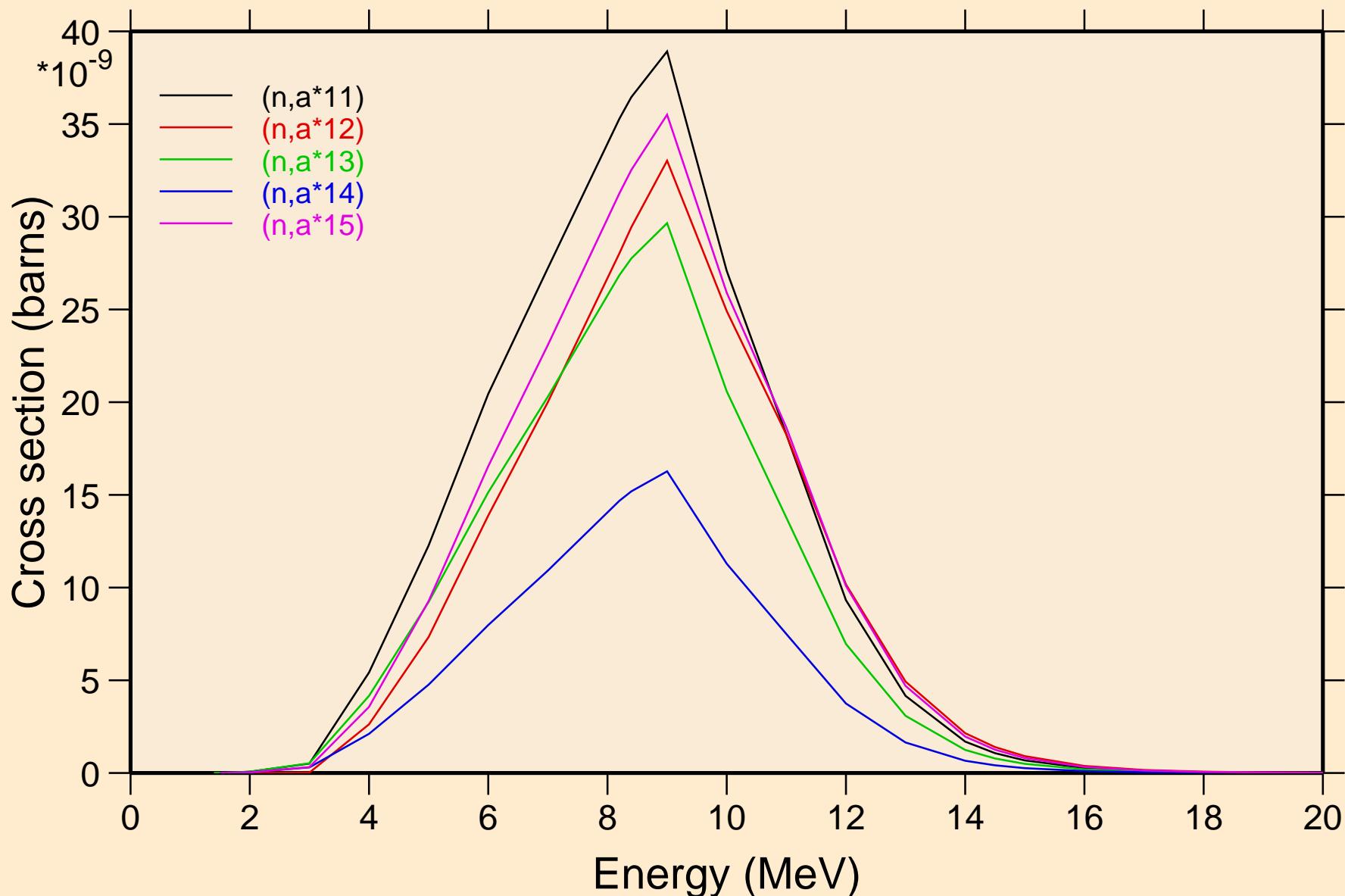
# ADVANCE CALCULATIONS

## Threshold reactions



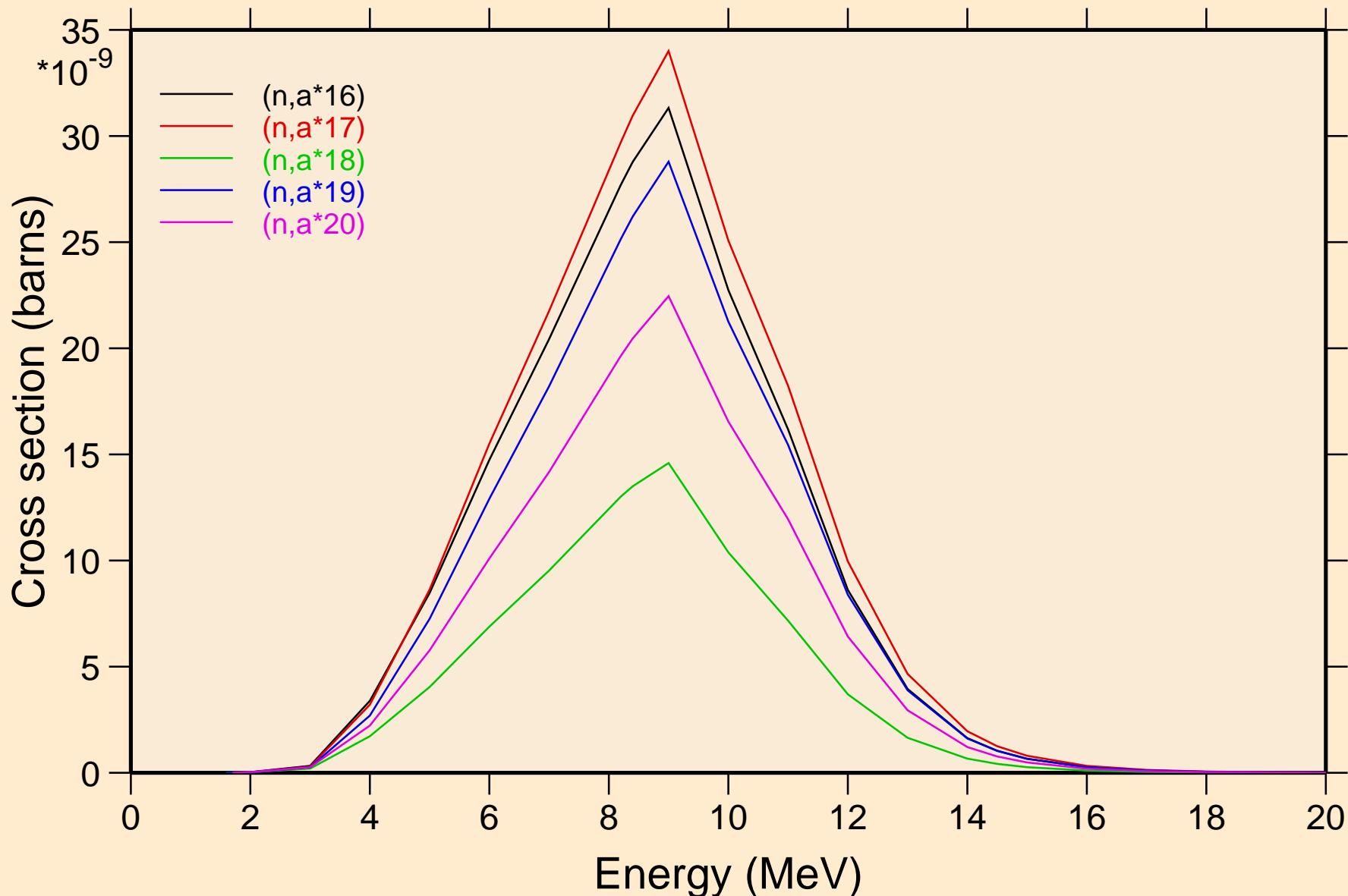
# ADVANCE CALCULATIONS

## Threshold reactions



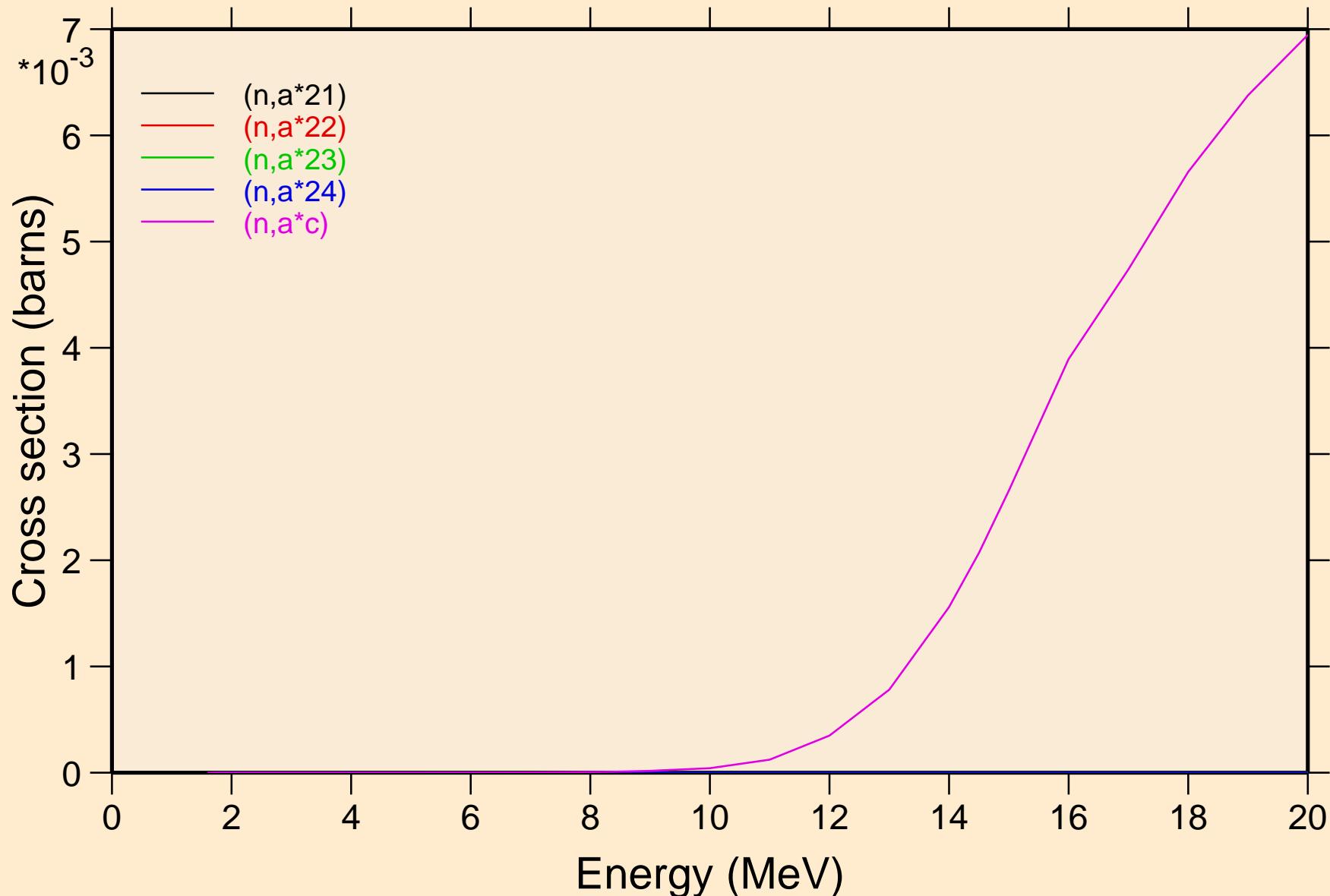
# ADVANCE CALCULATIONS

## Threshold reactions



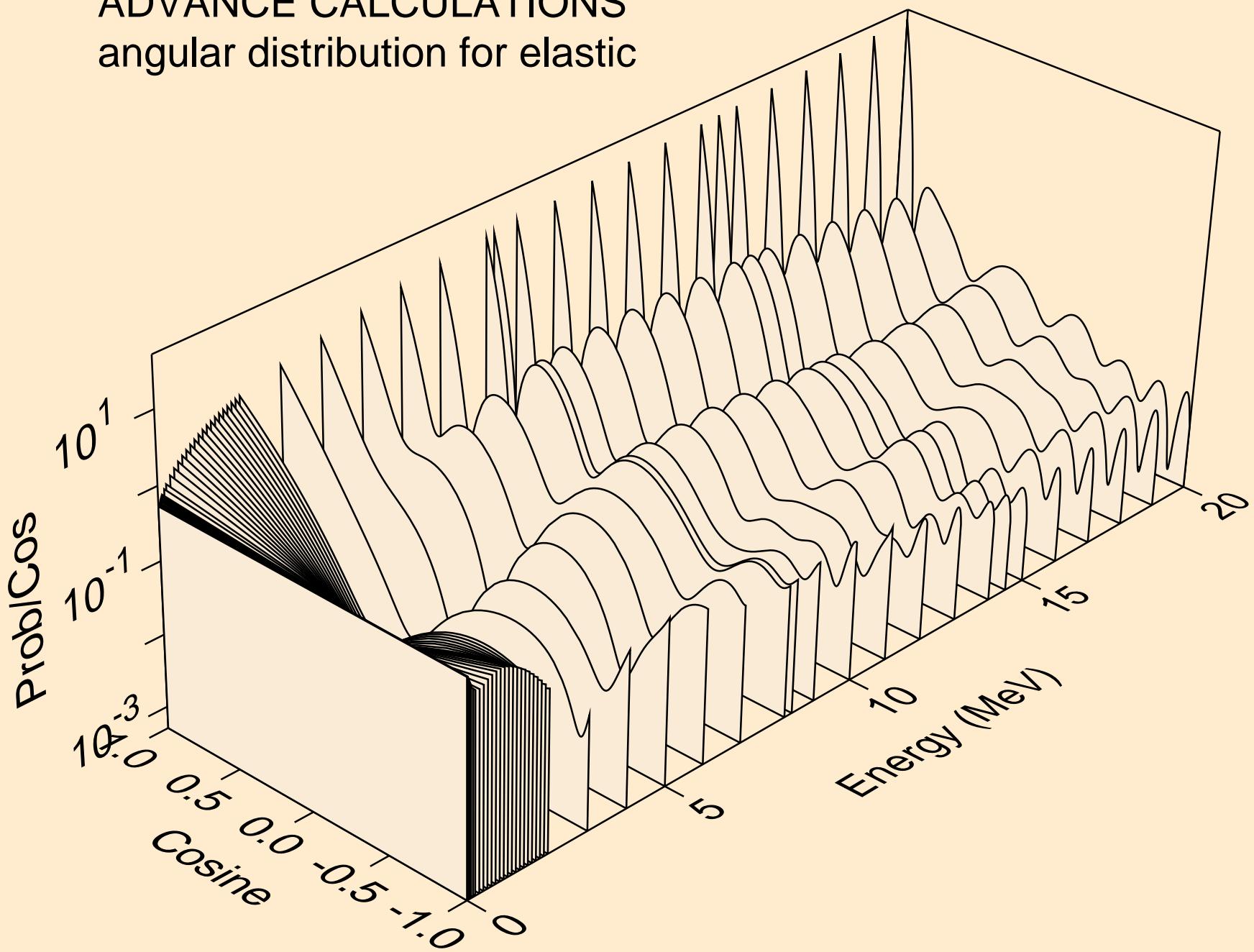
# ADVANCE CALCULATIONS

## Threshold reactions



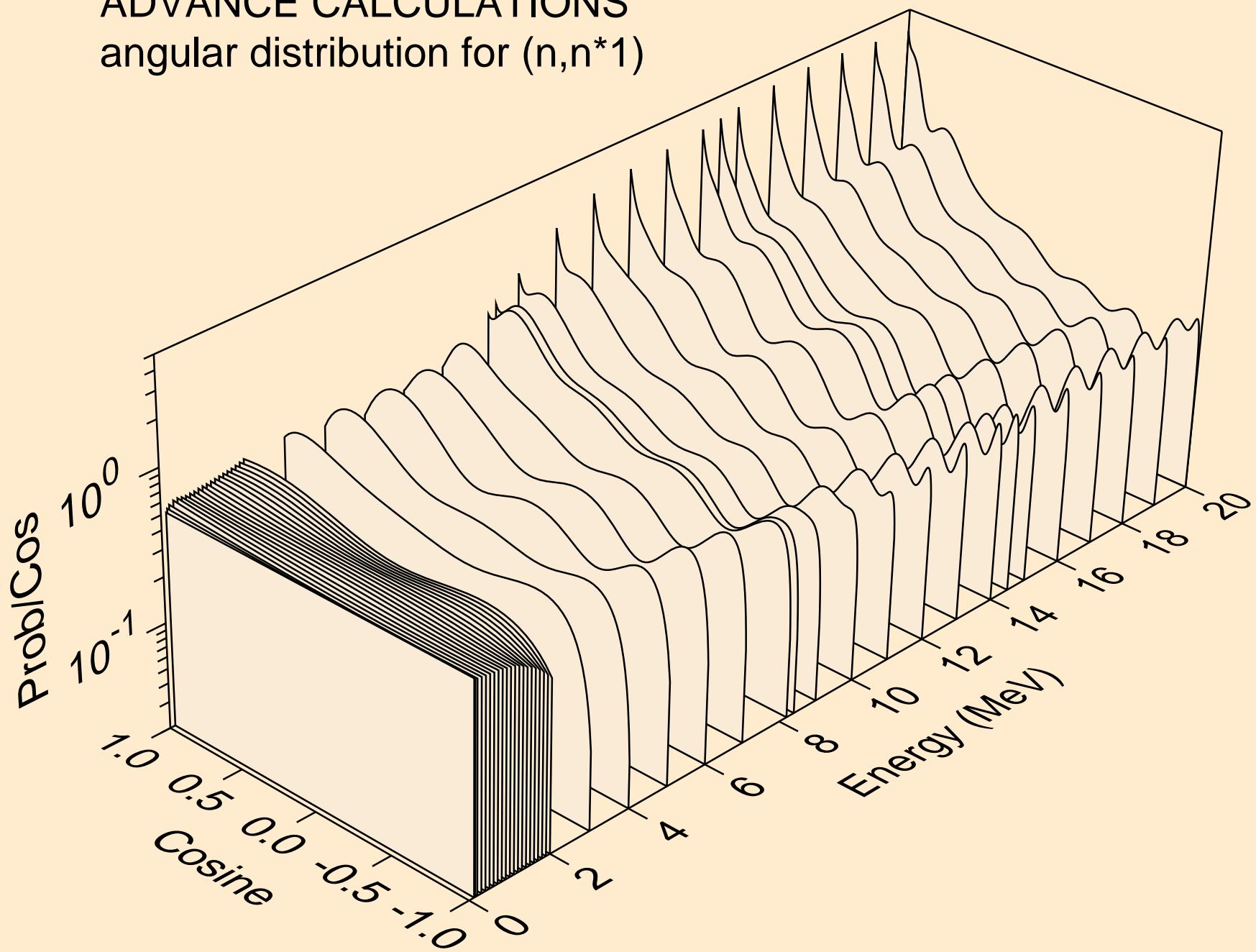
# ADVANCE CALCULATIONS

angular distribution for elastic



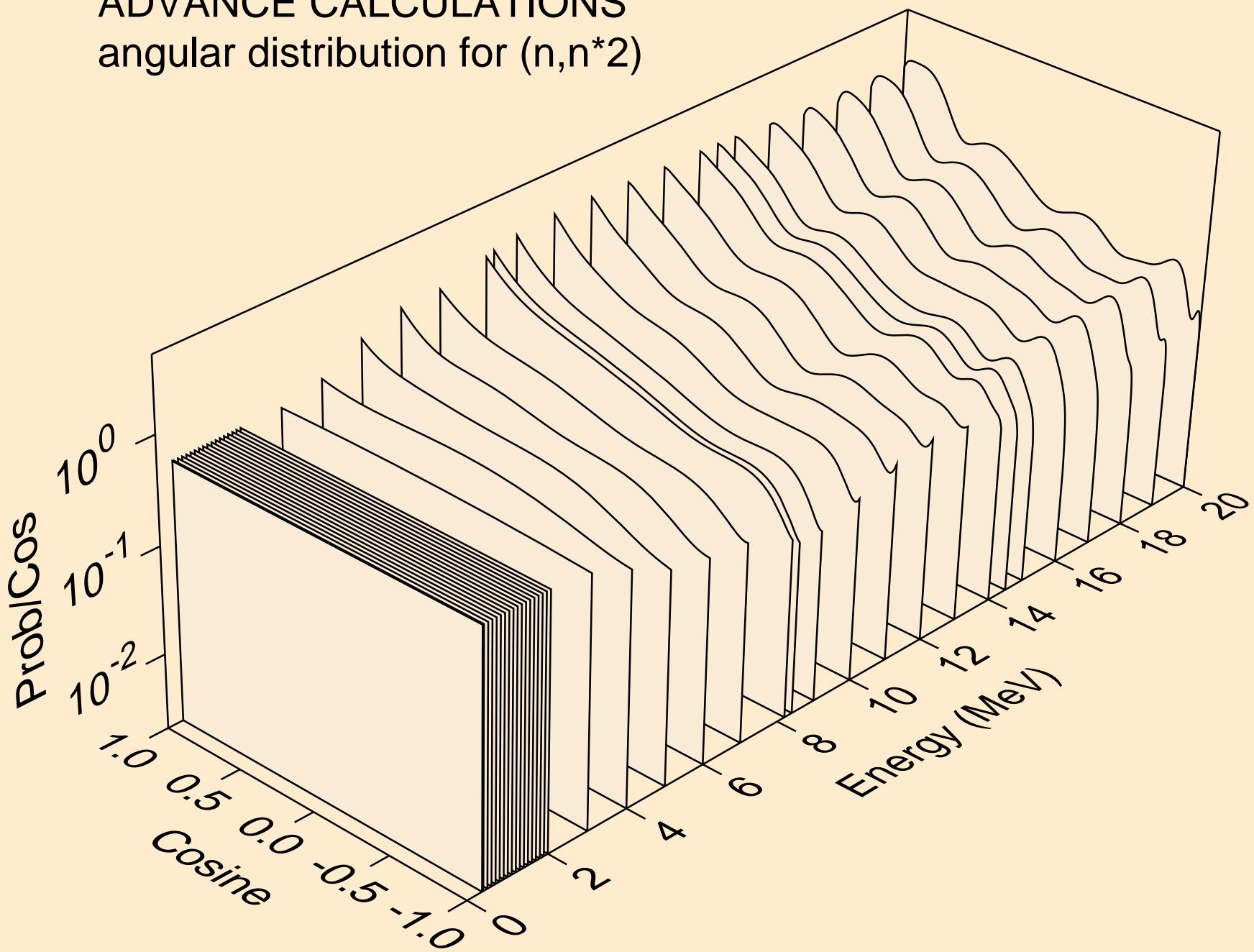
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*1)



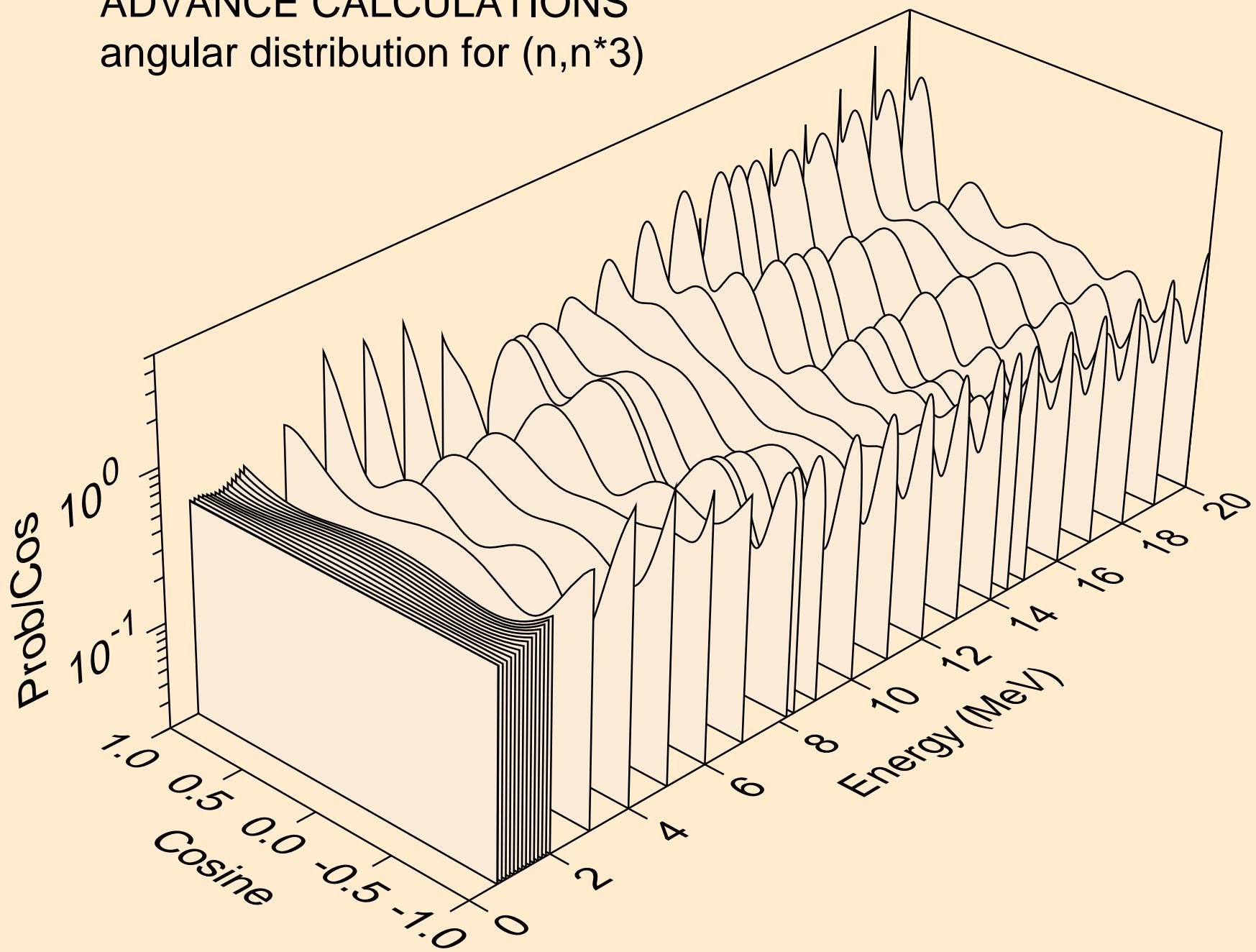
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^2$



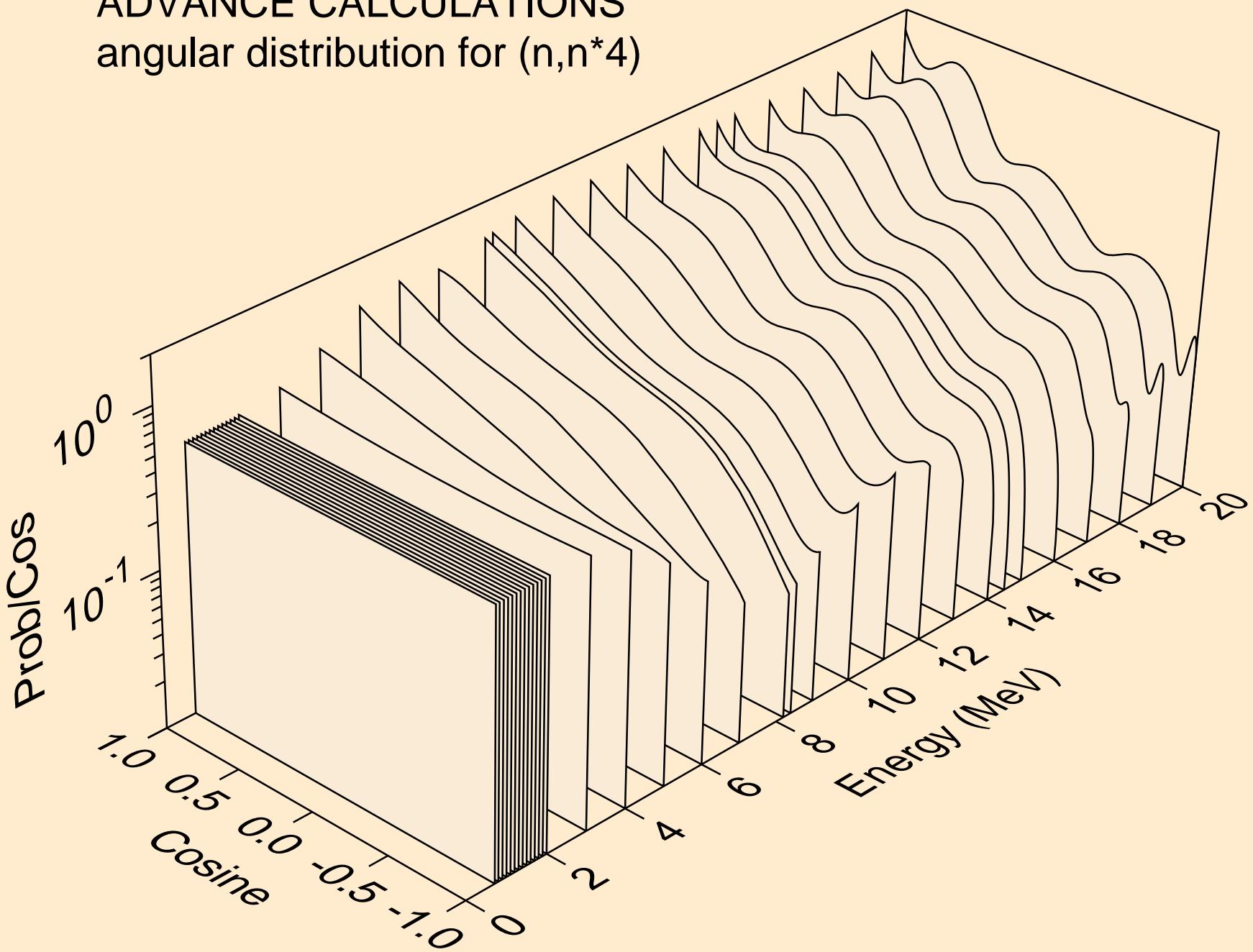
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^3$



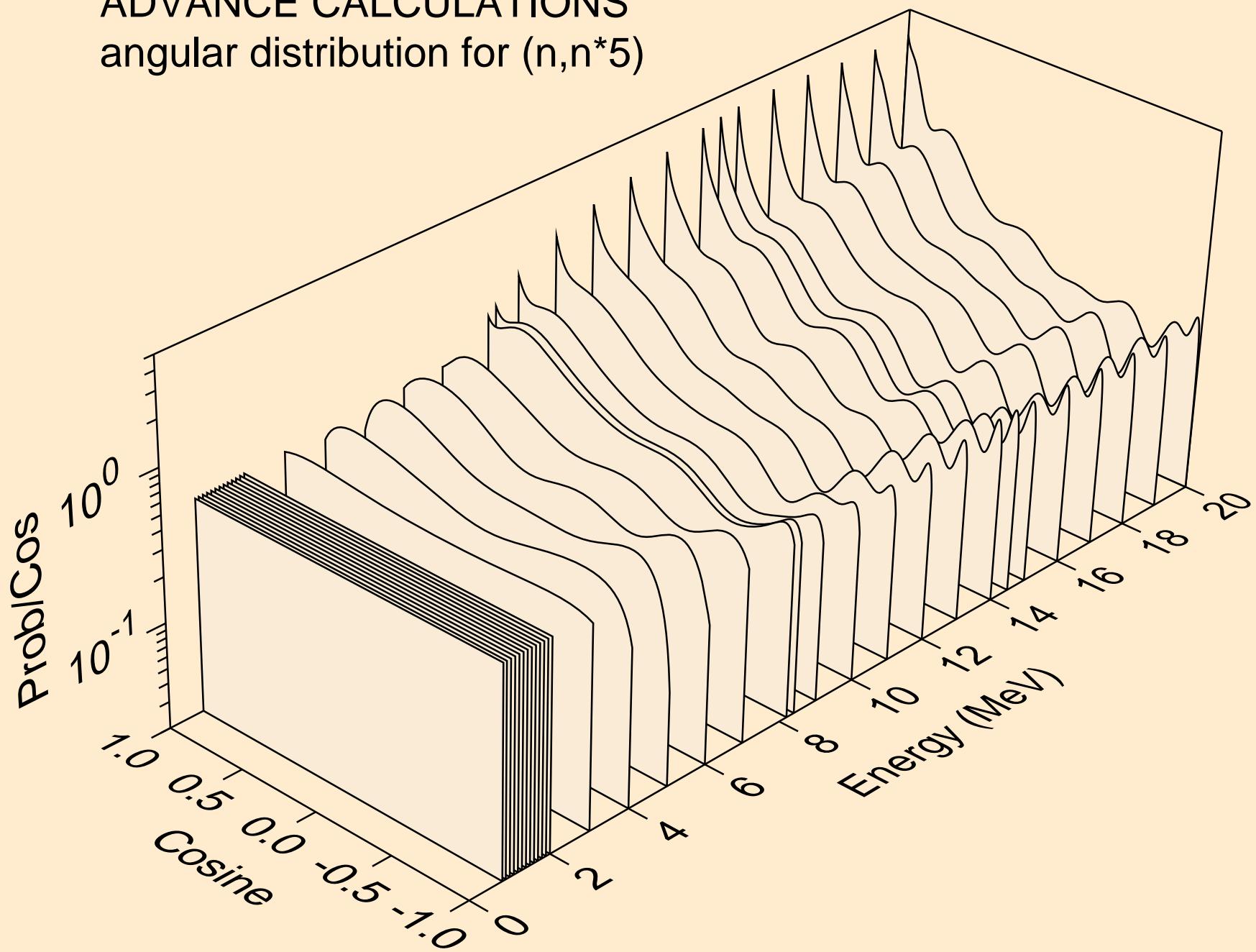
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*4)$



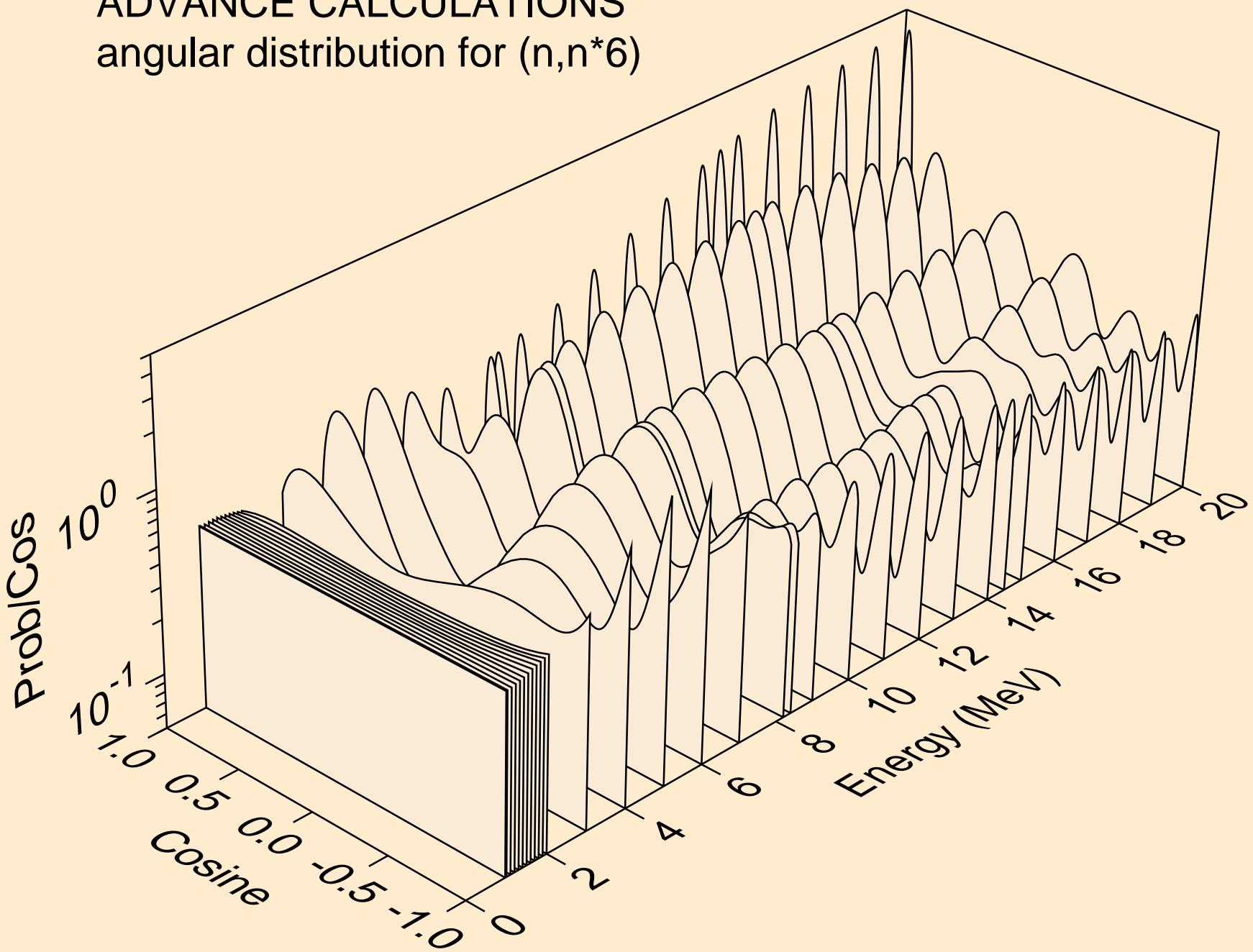
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^5$



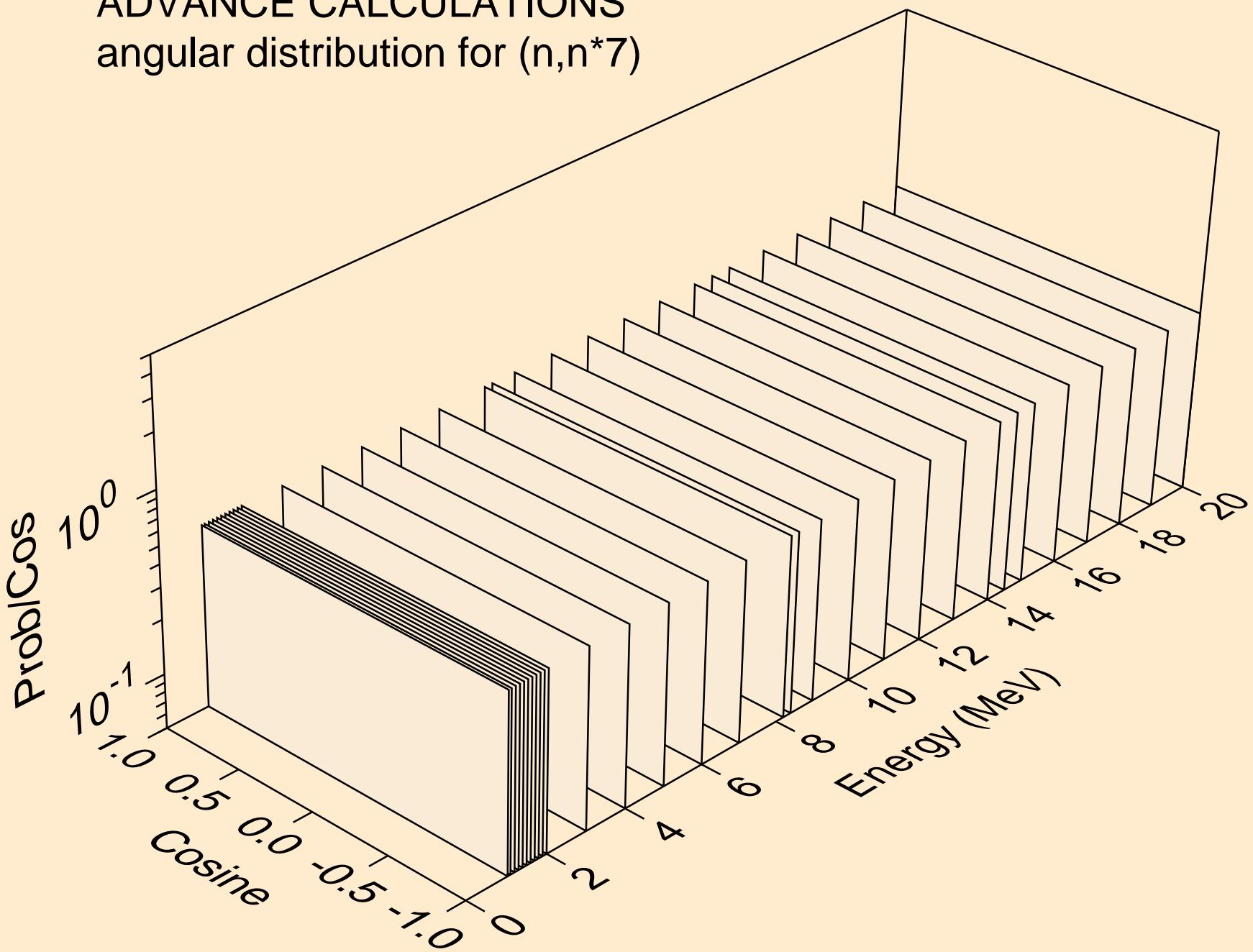
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*6)$



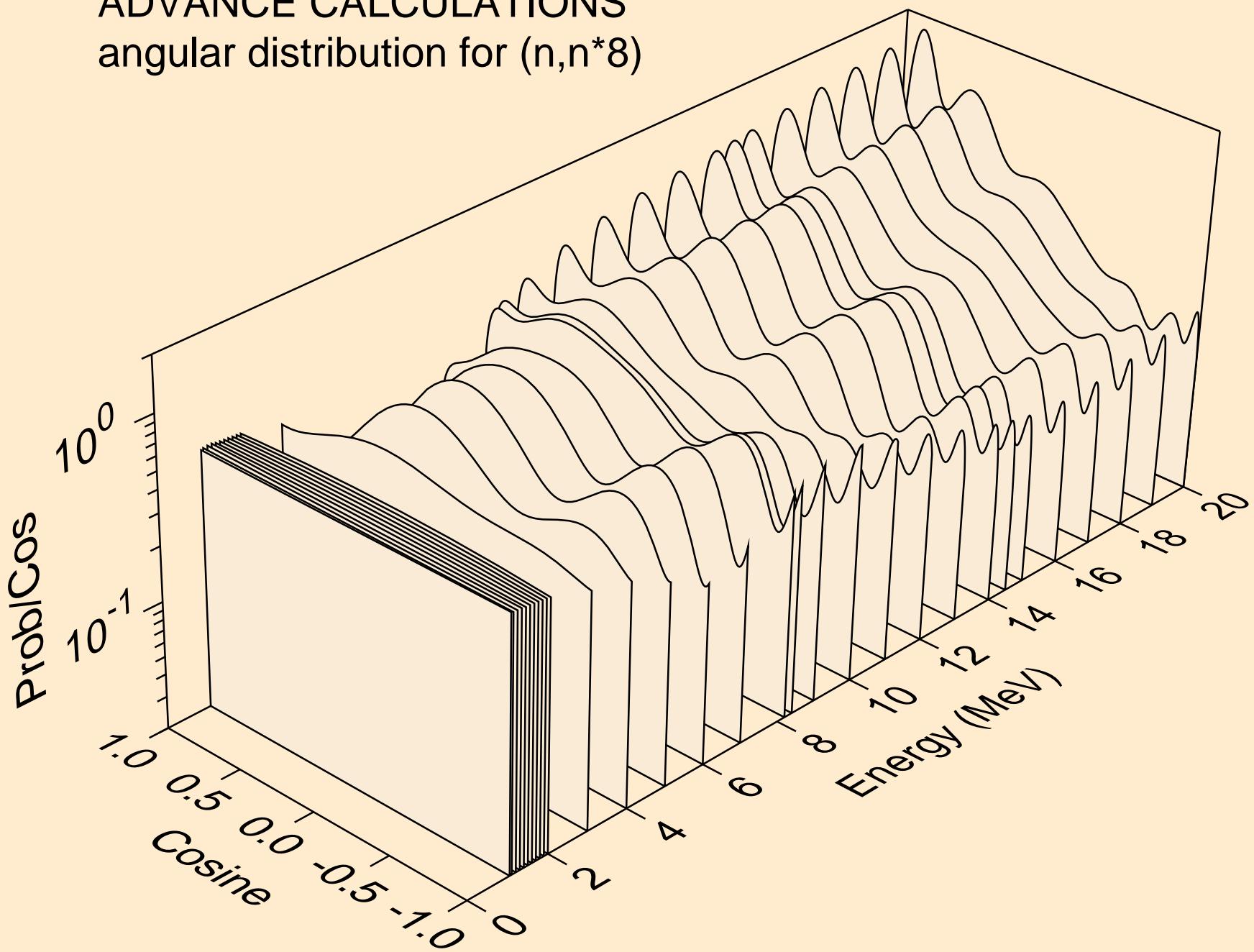
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*7)



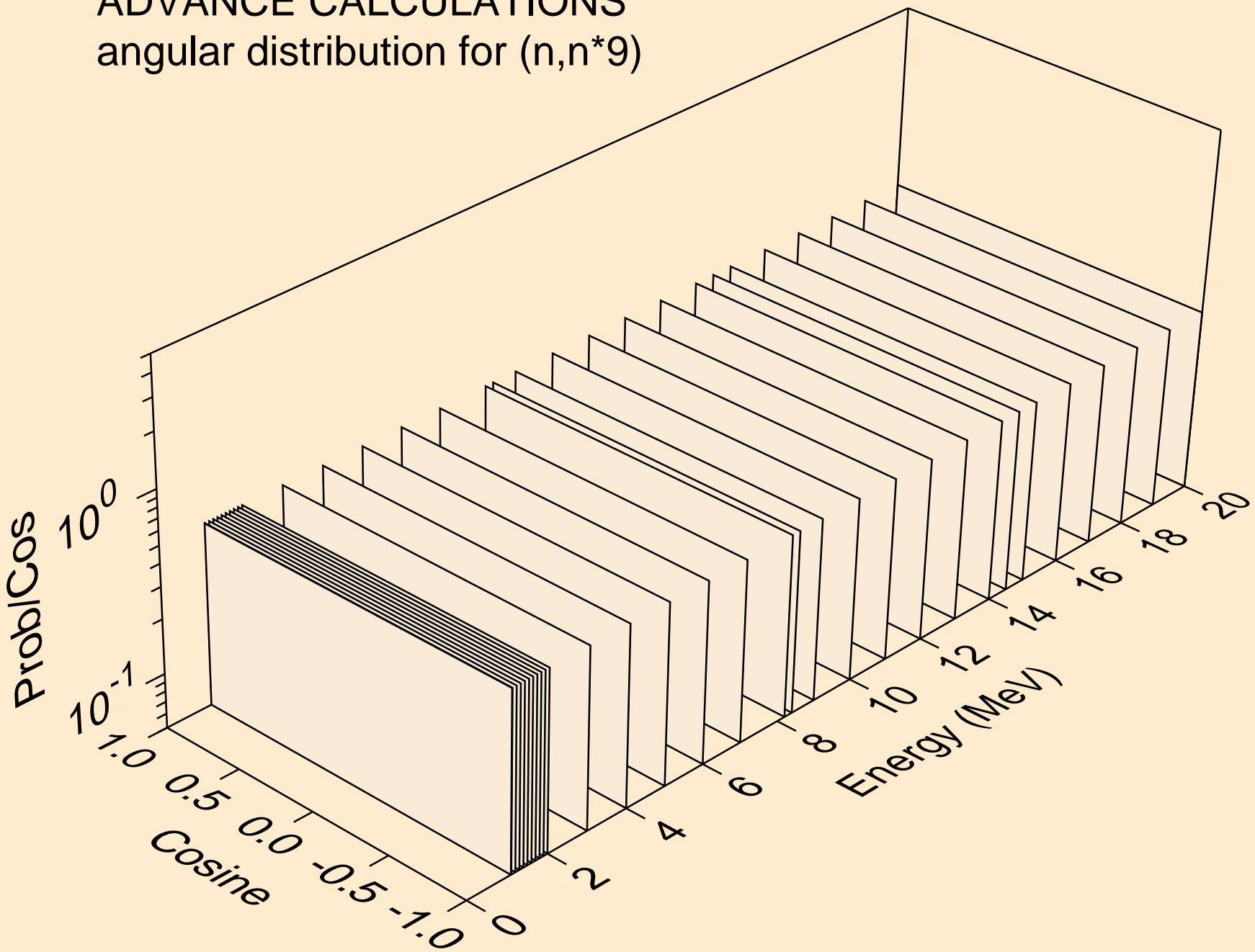
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*8)$



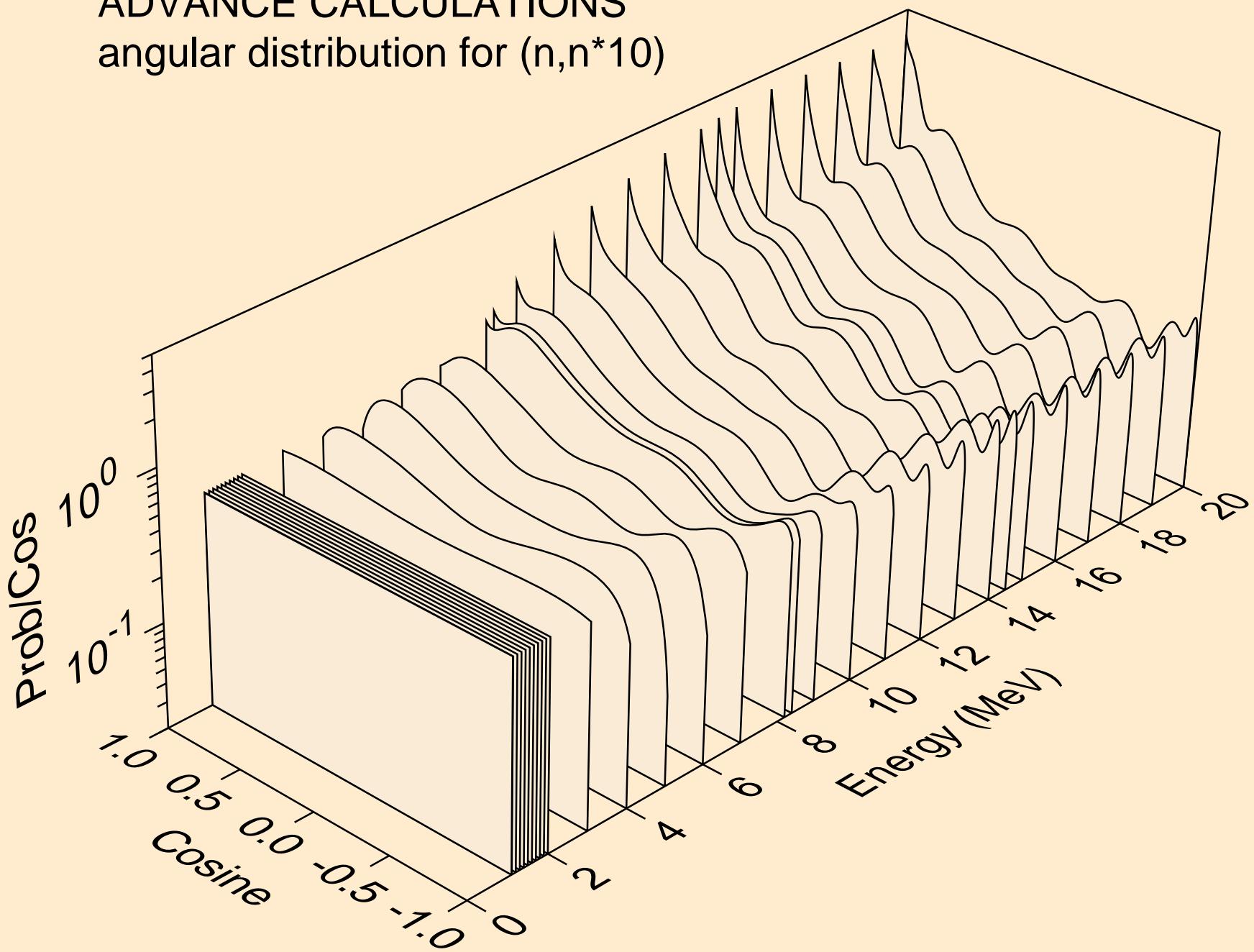
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)9$



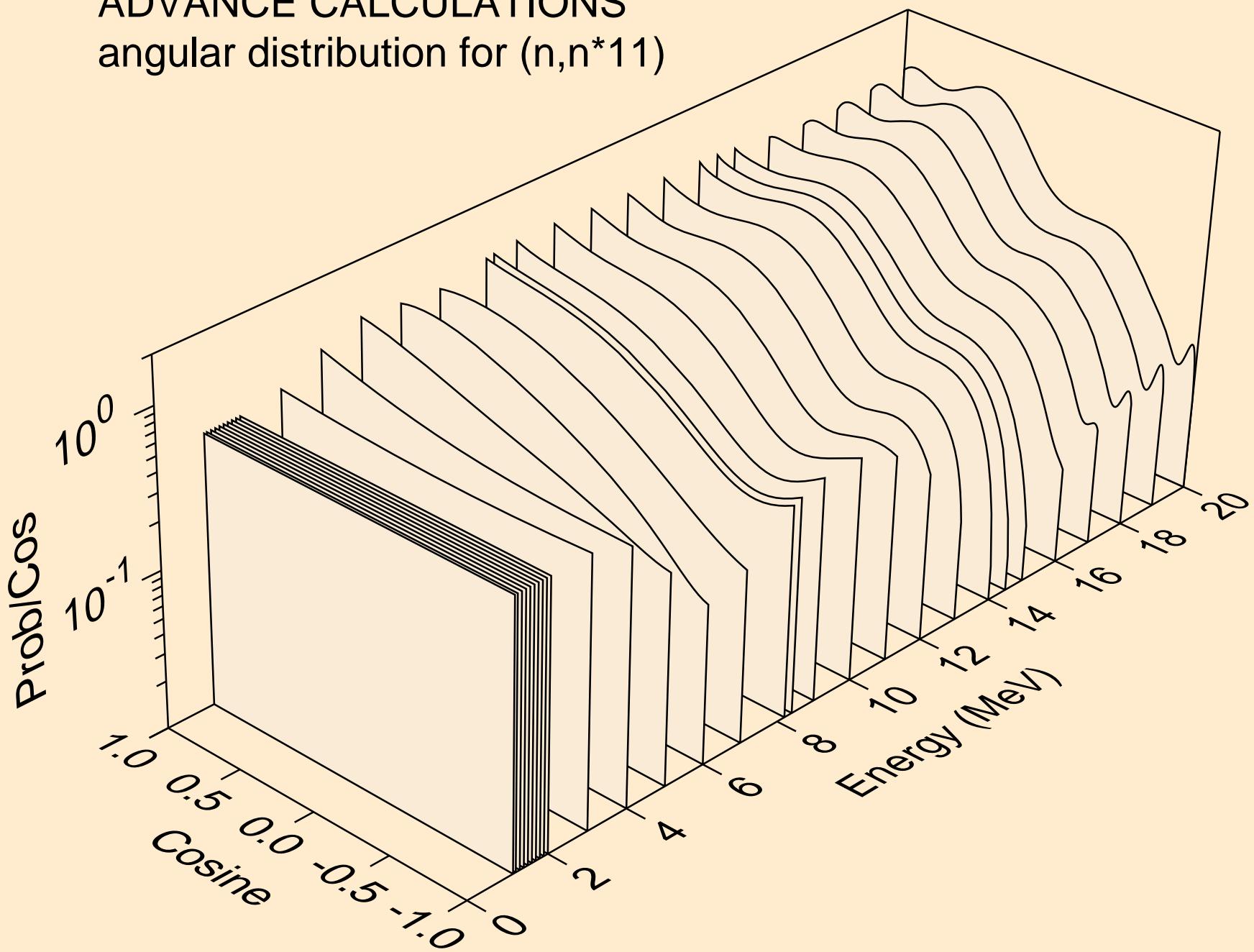
# ADVANCE CALCULATIONS

angular distribution for  $(n,n*10)$



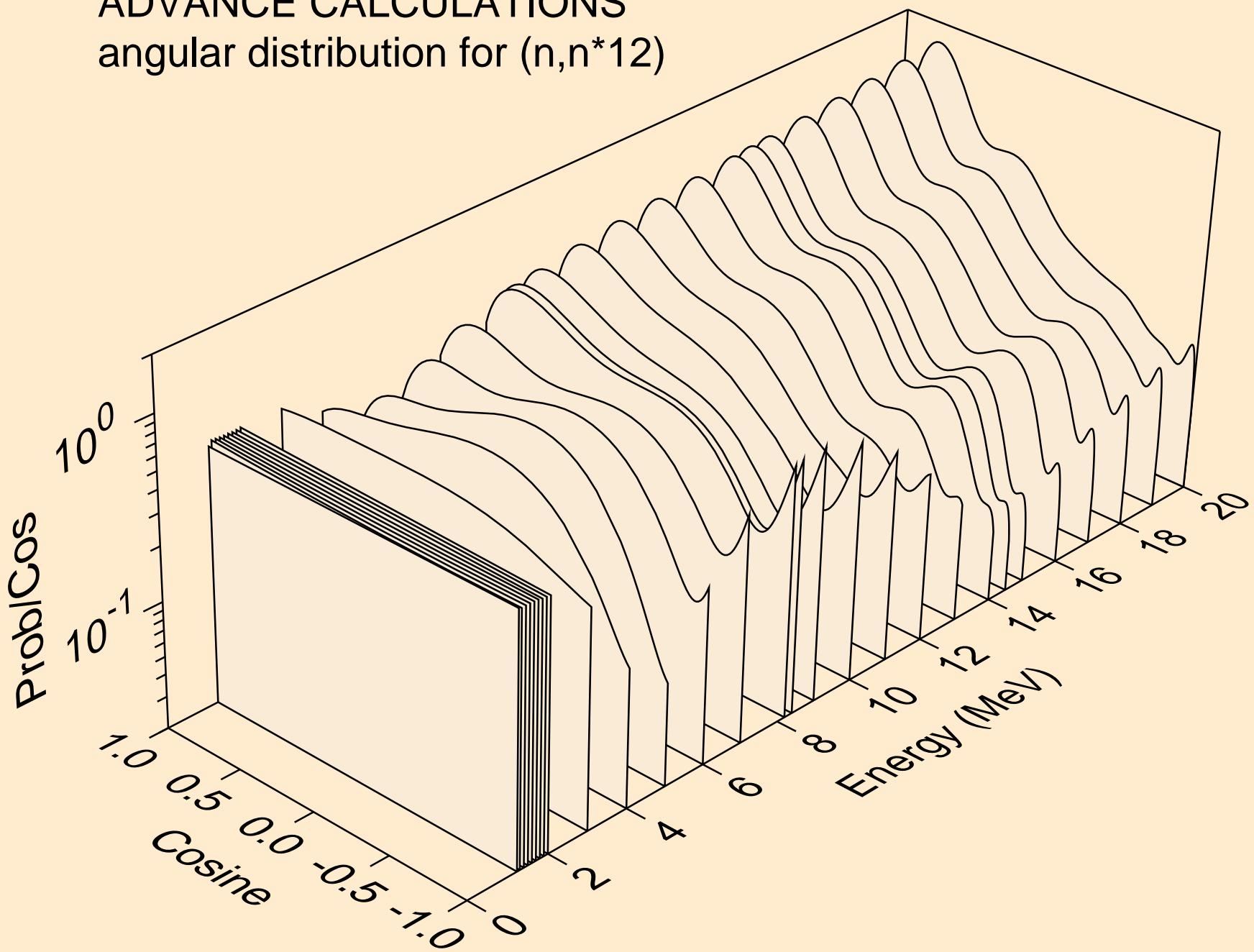
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*11)



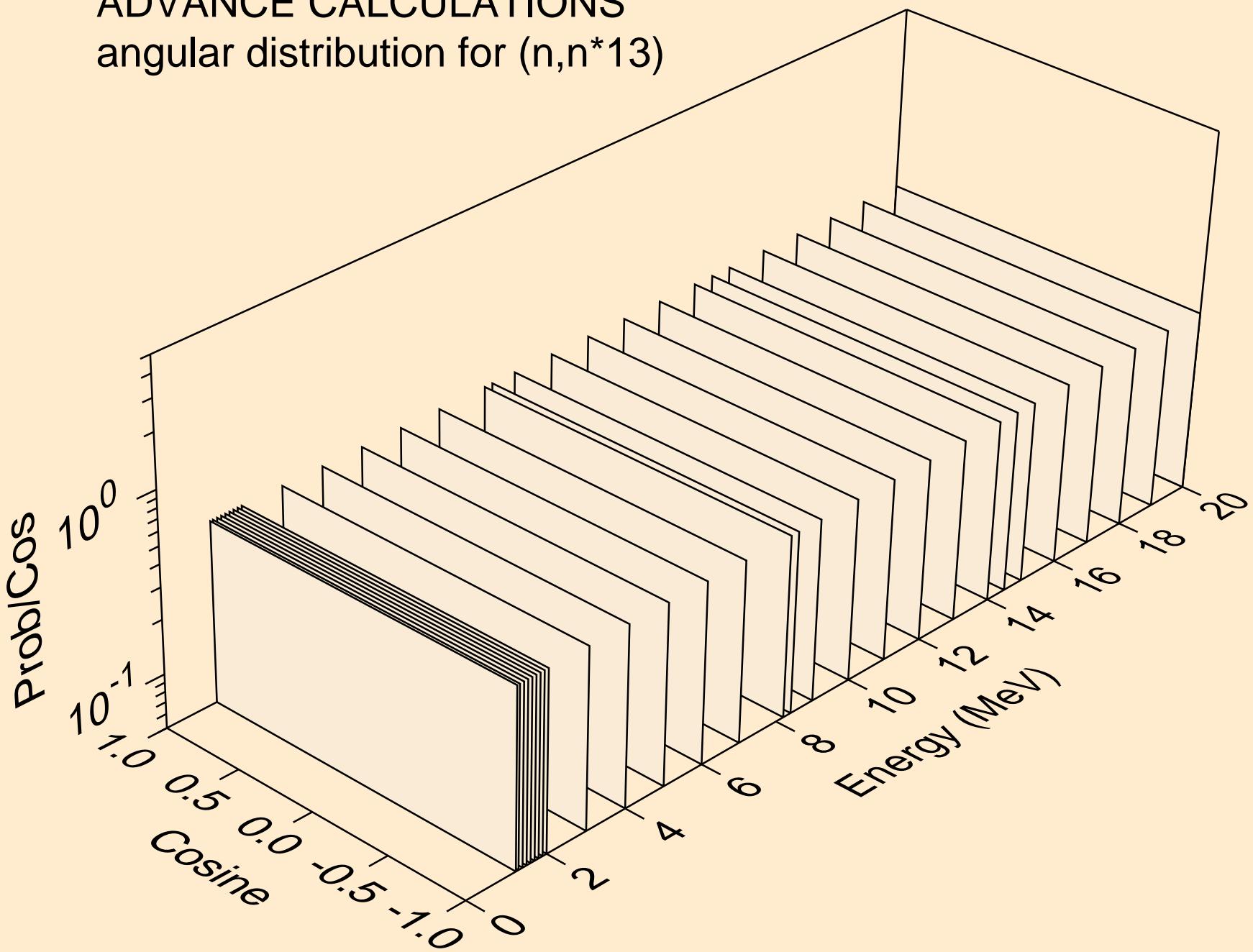
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*12)$



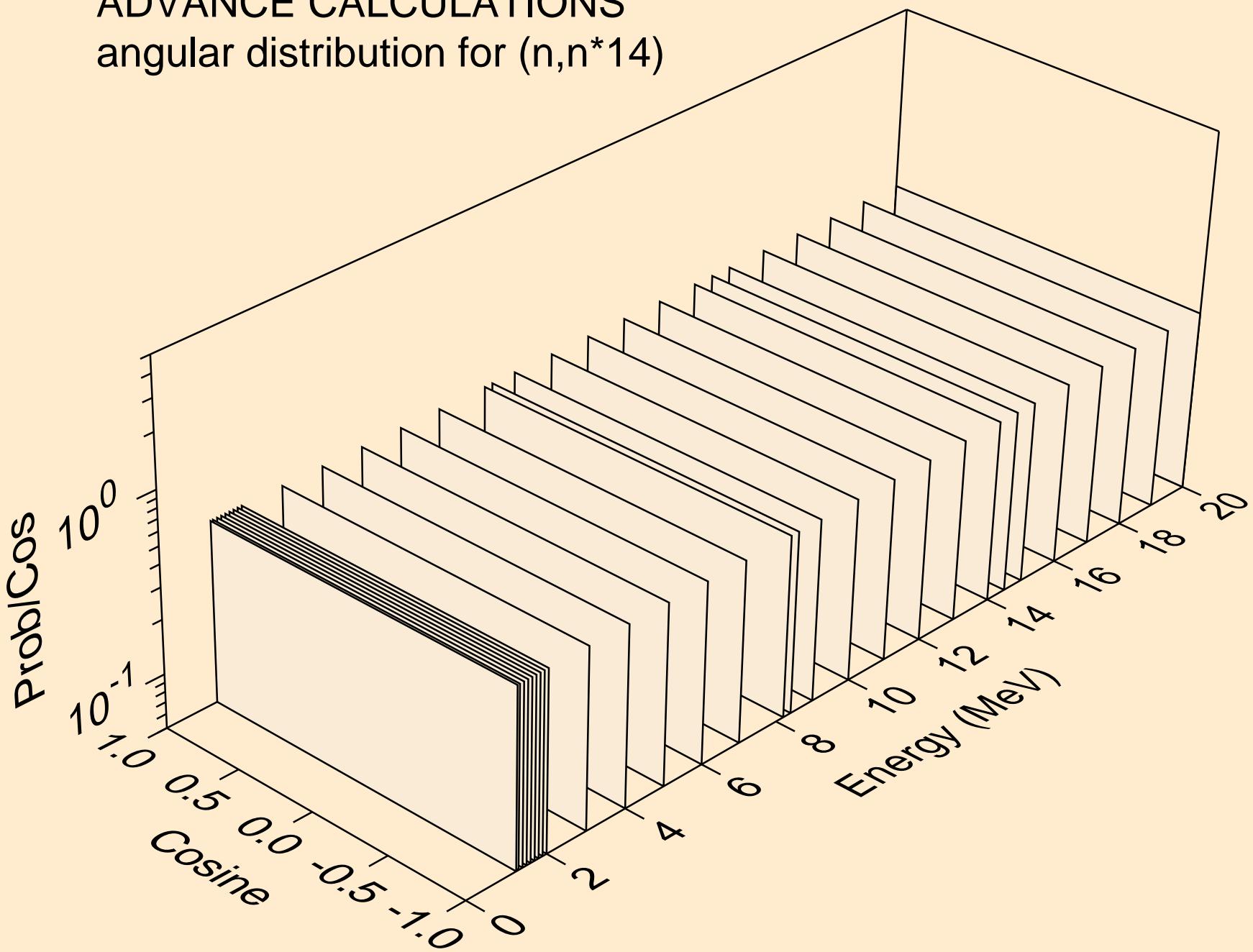
# ADVANCE CALCULATIONS

angular distribution for (n,n\*13)



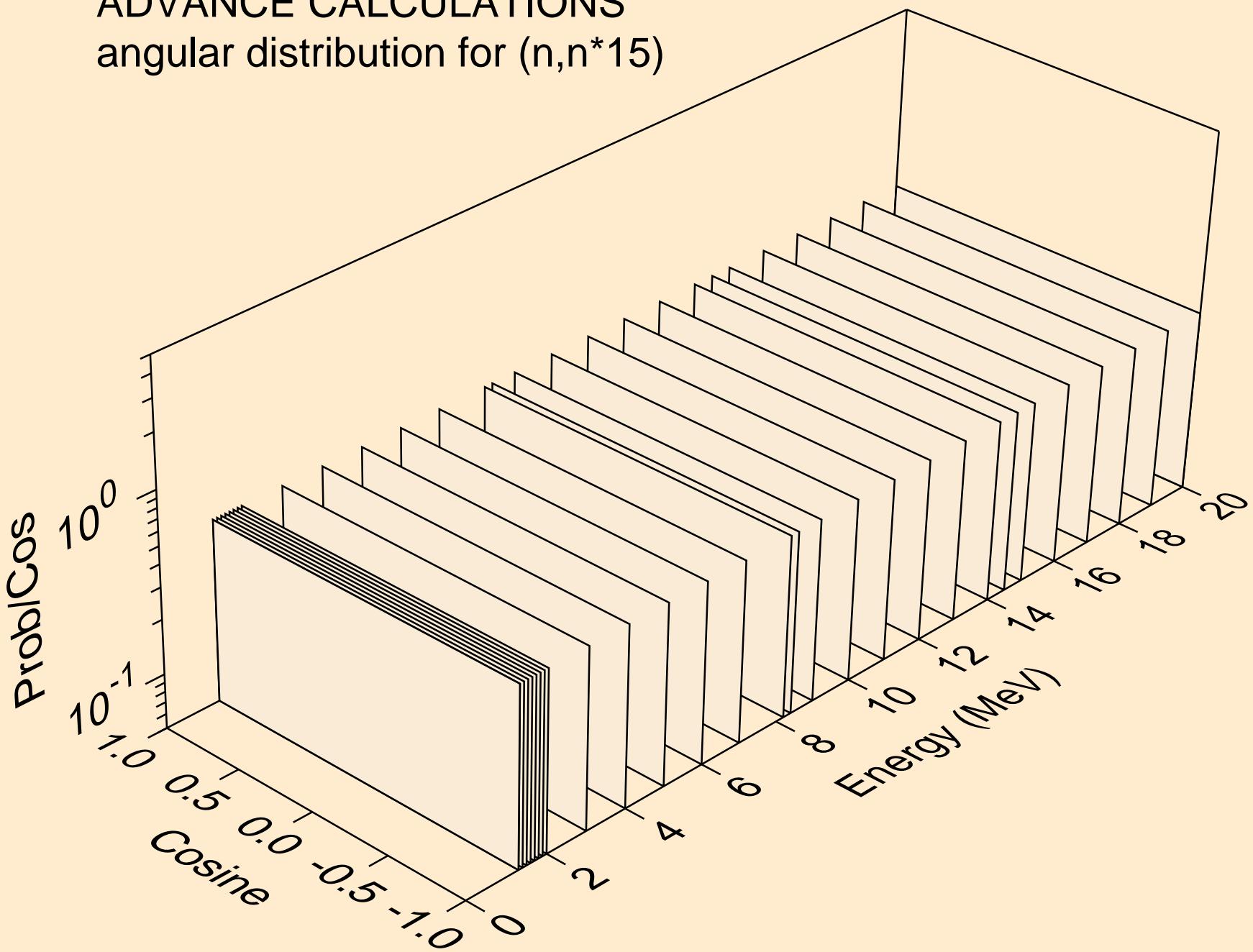
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*14)



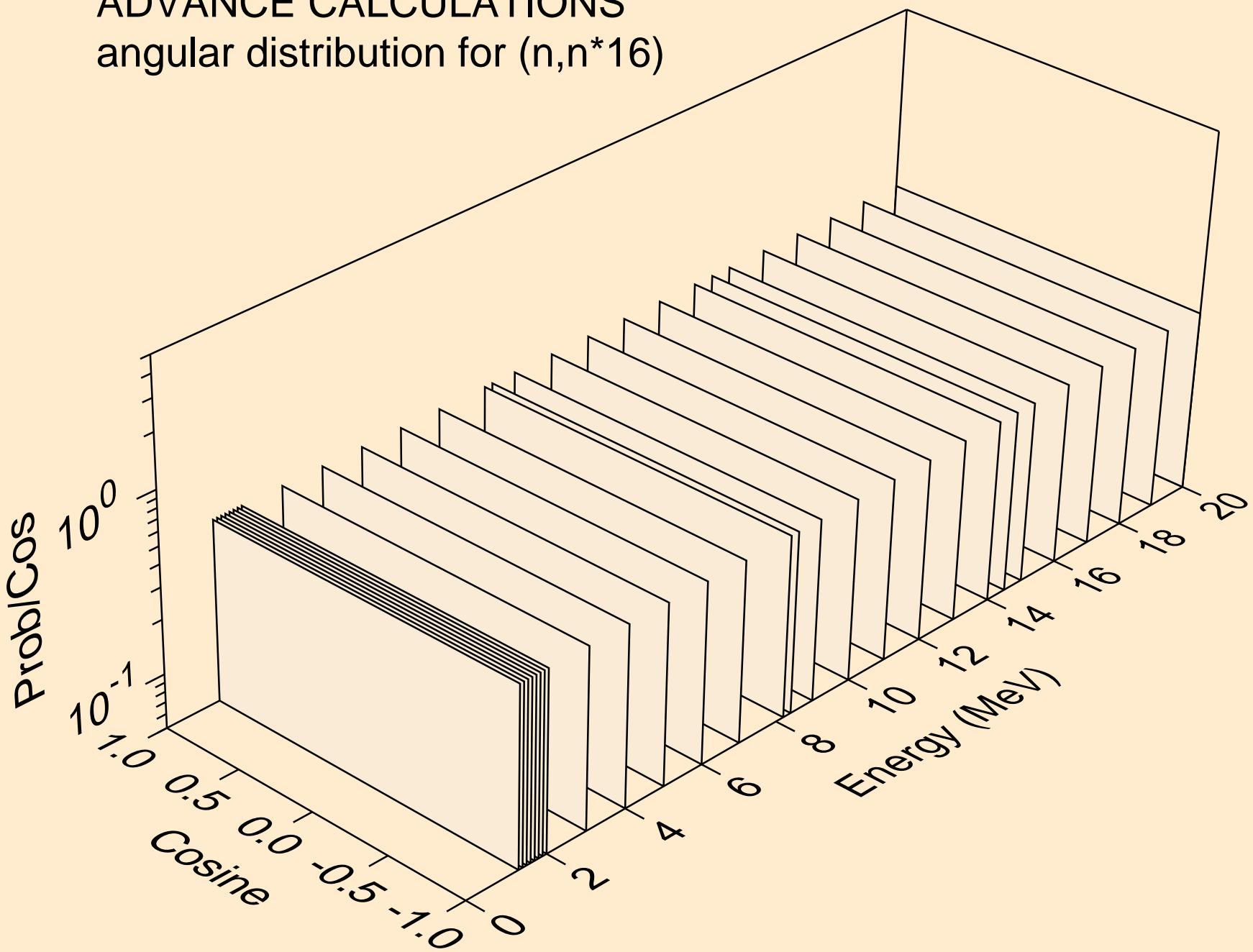
# ADVANCE CALCULATIONS

angular distribution for (n,n\*15)



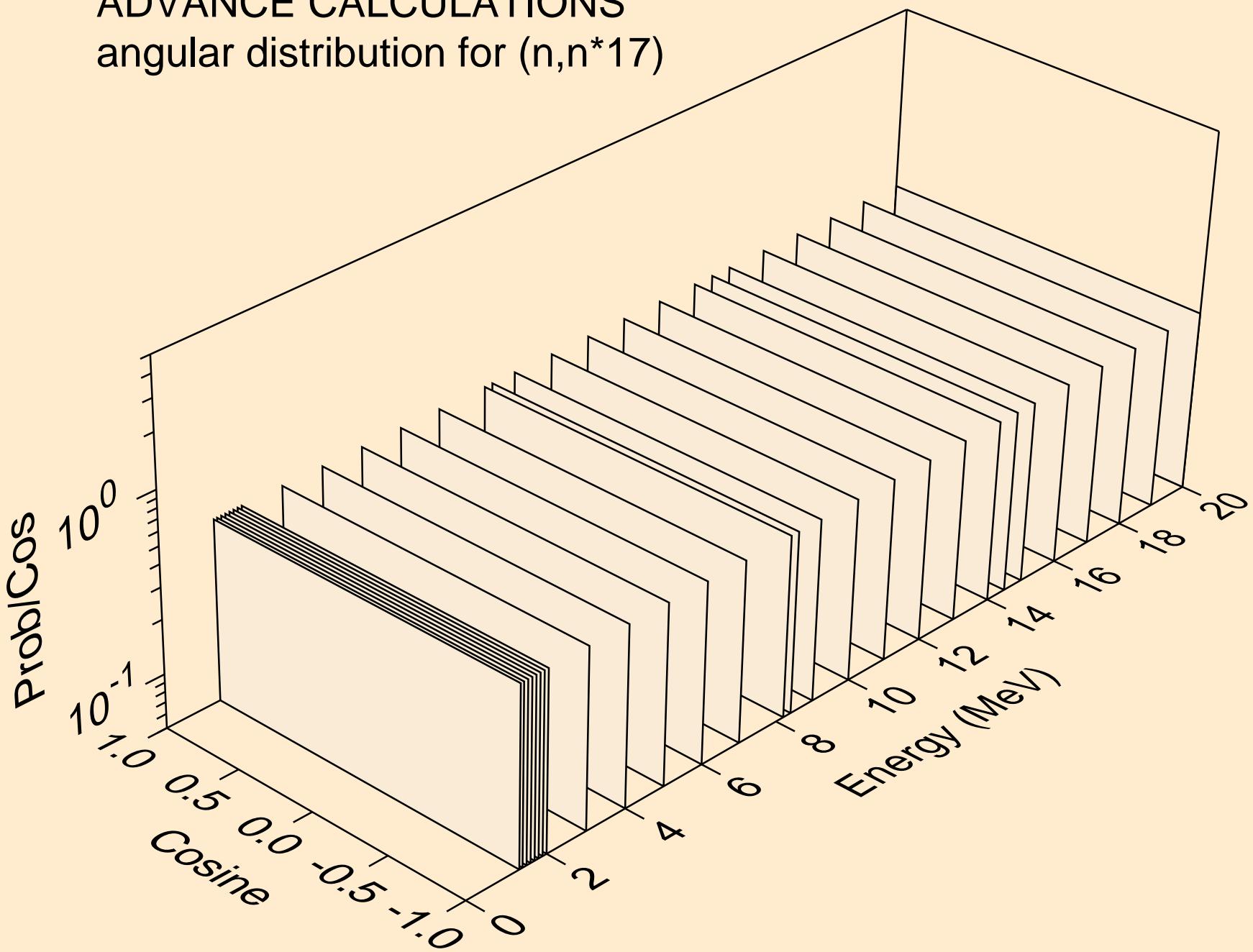
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*16)



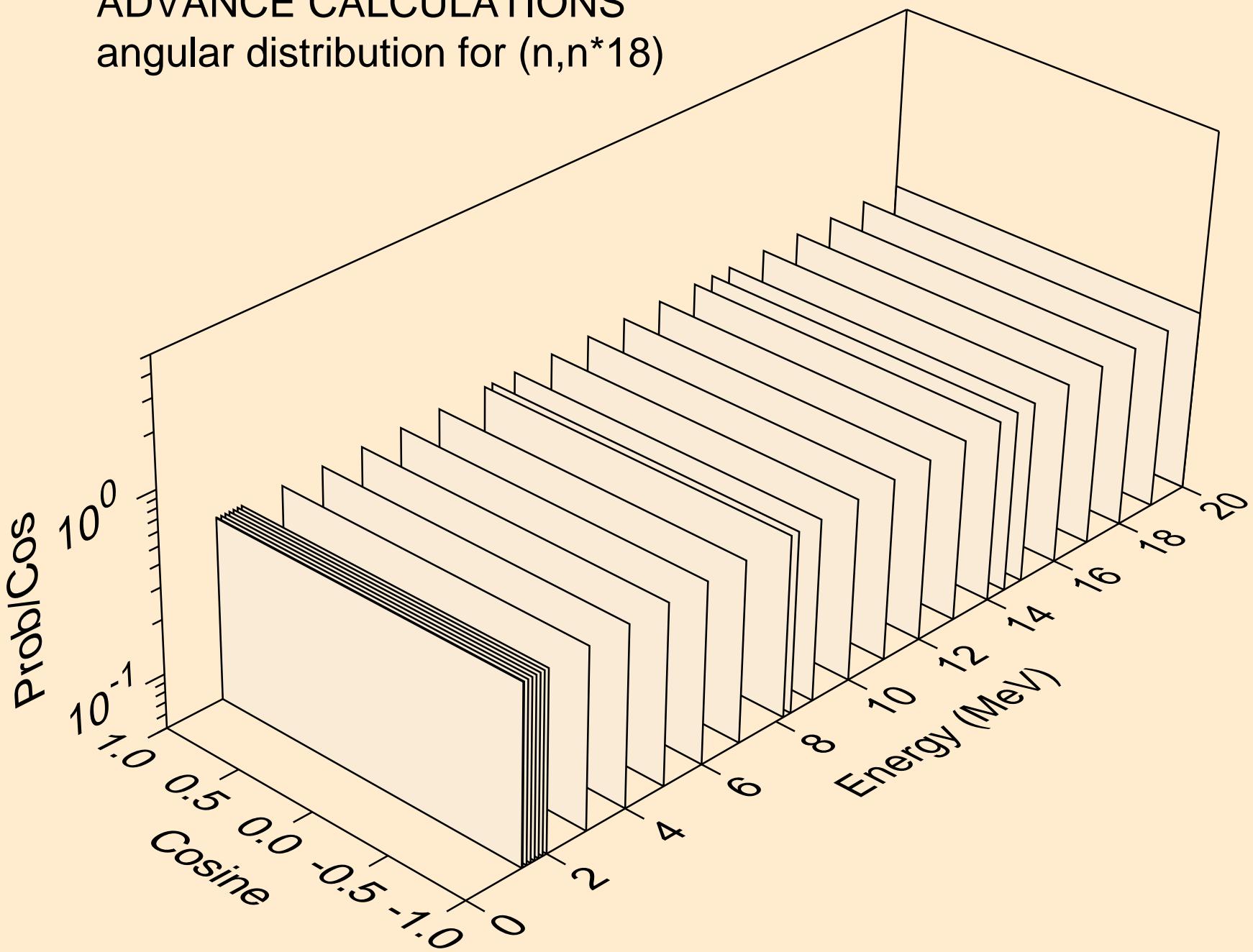
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*17)



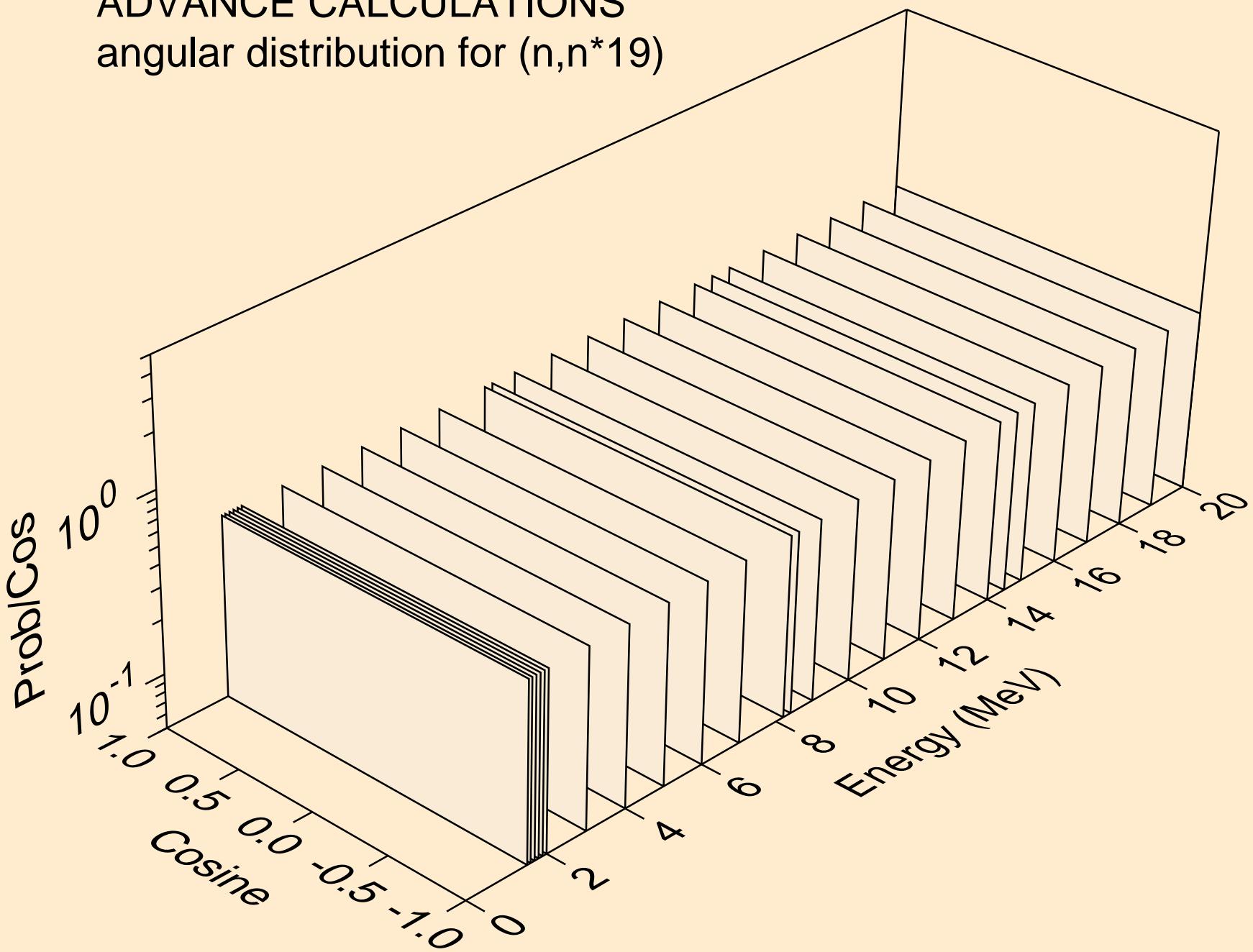
# ADVANCE CALCULATIONS

angular distribution for (n,n\*18)



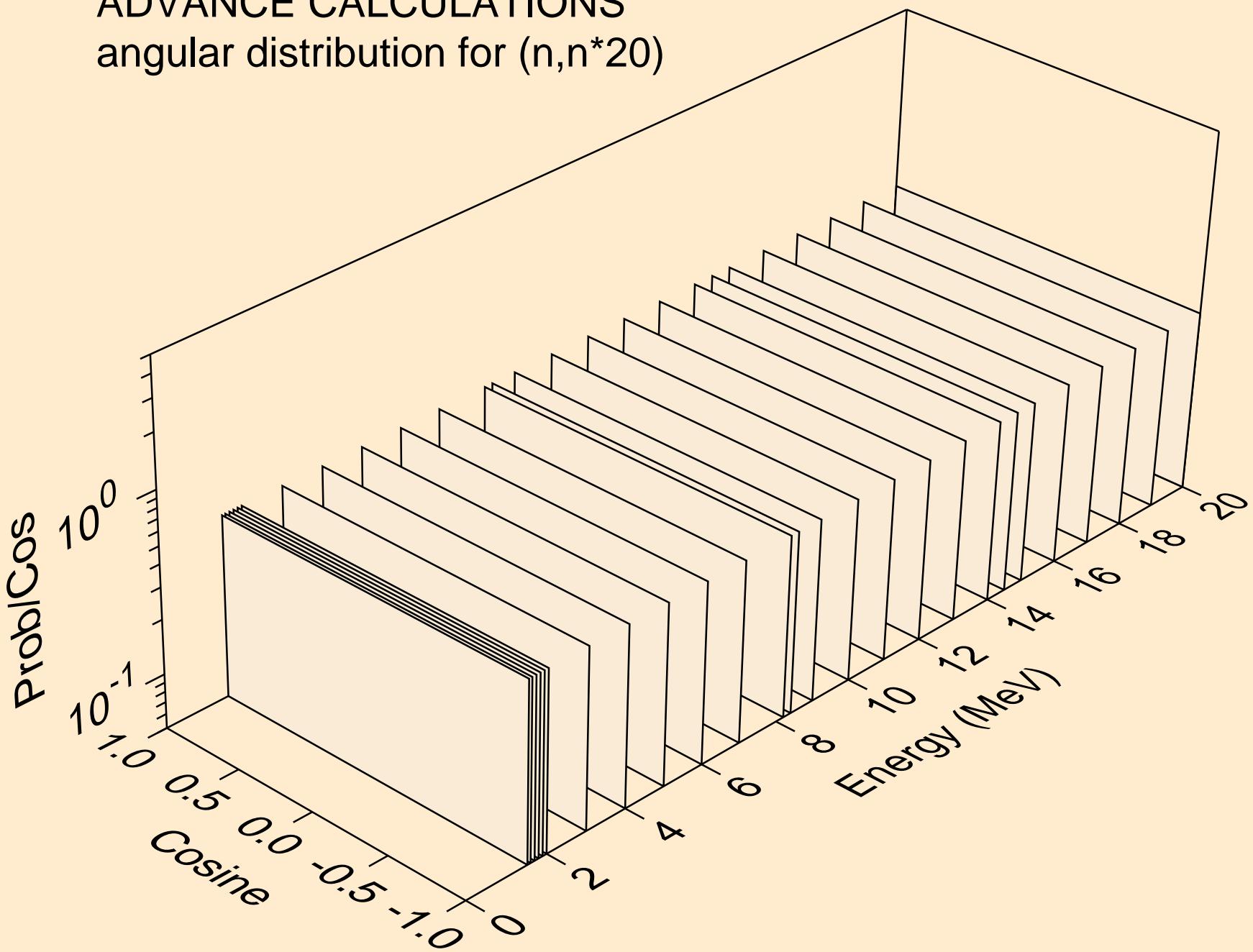
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*19)



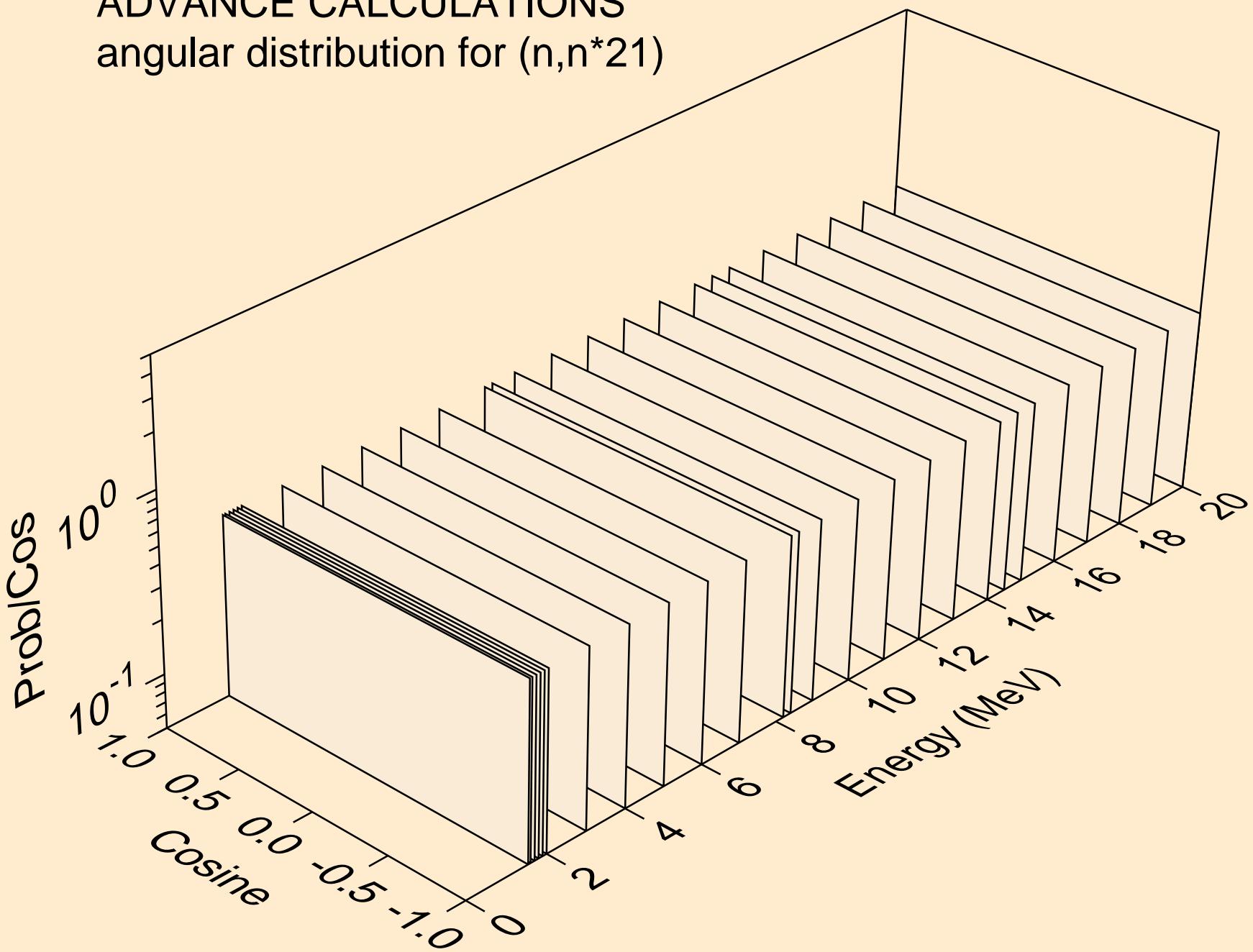
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*20)



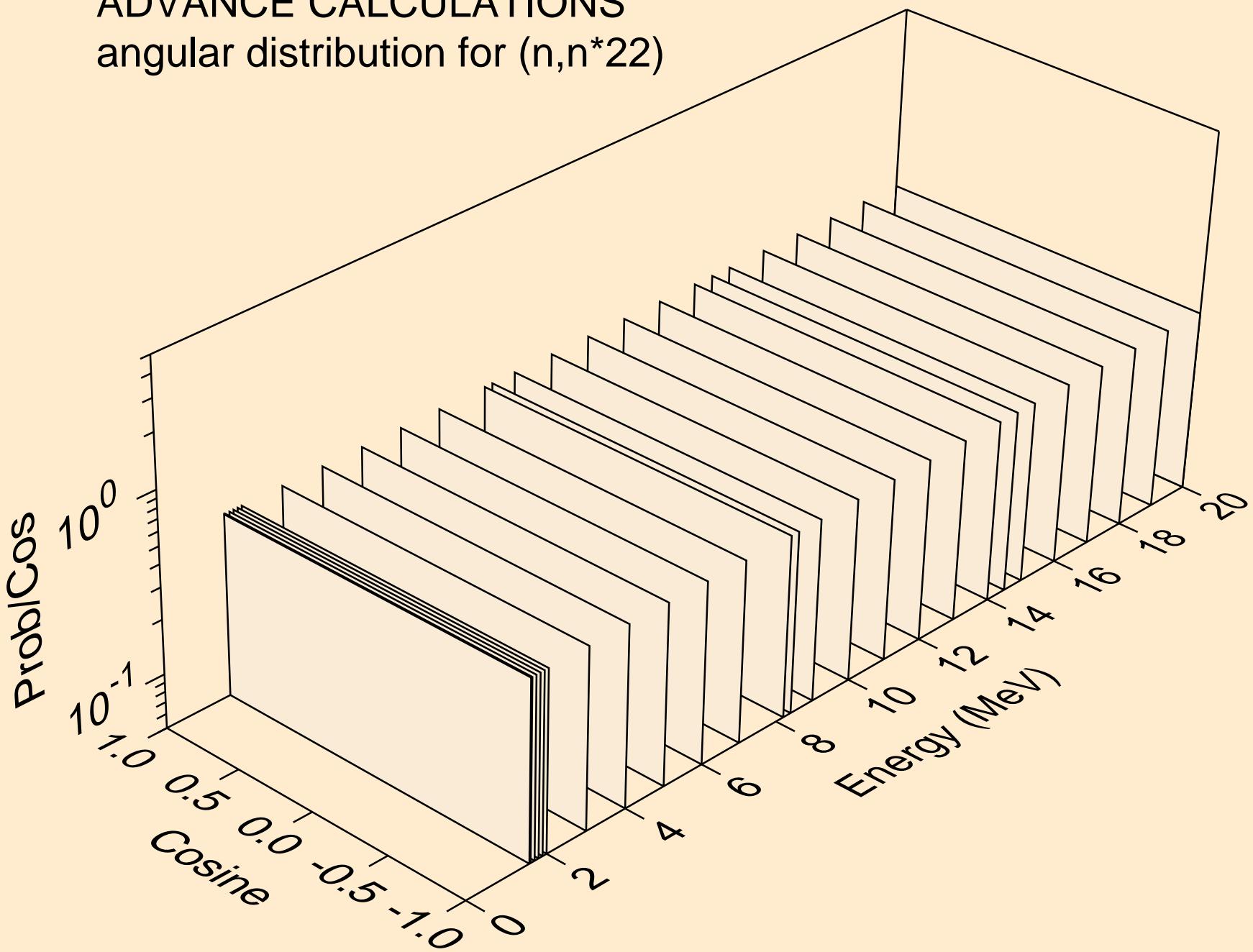
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*21)



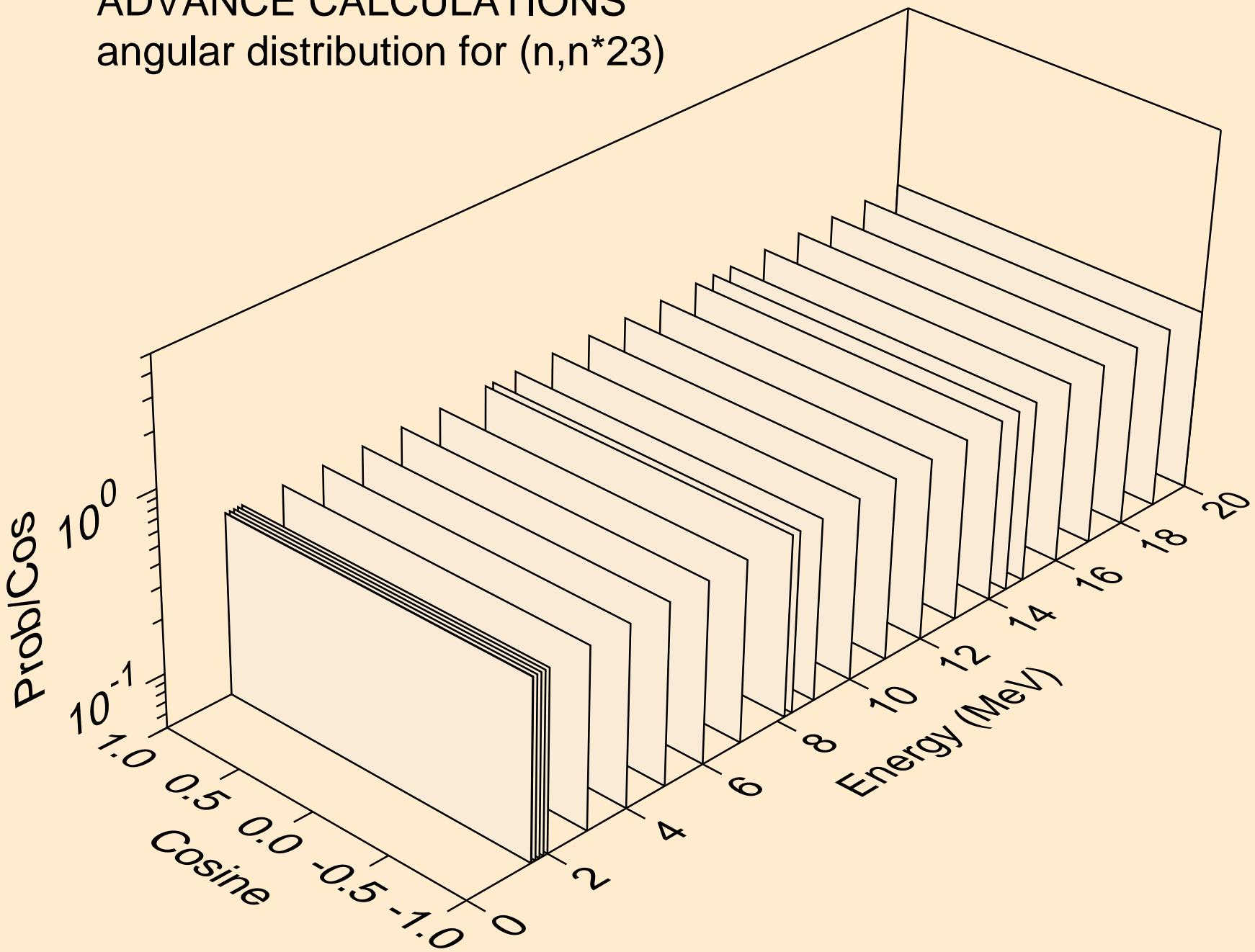
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^{22}$



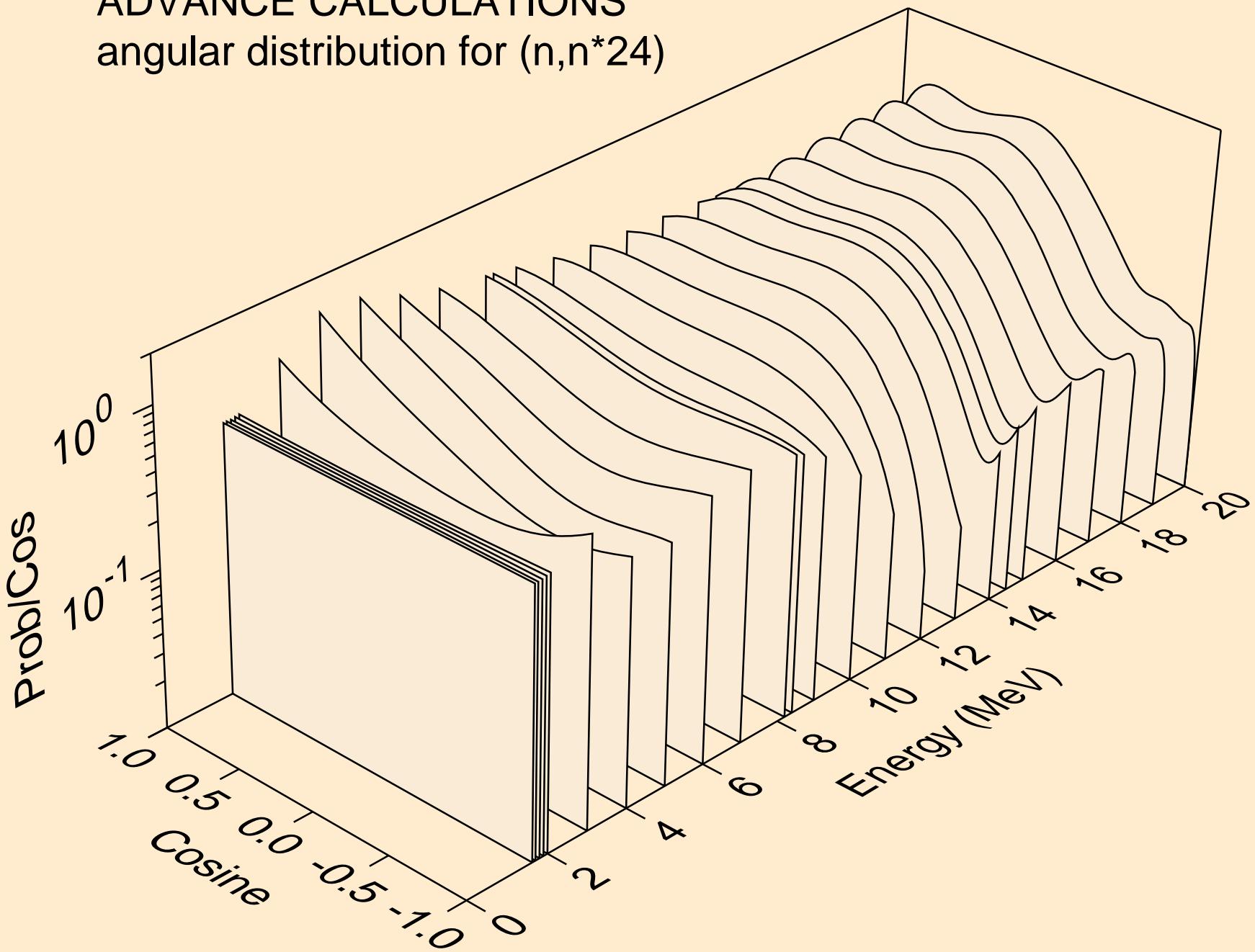
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*23)$



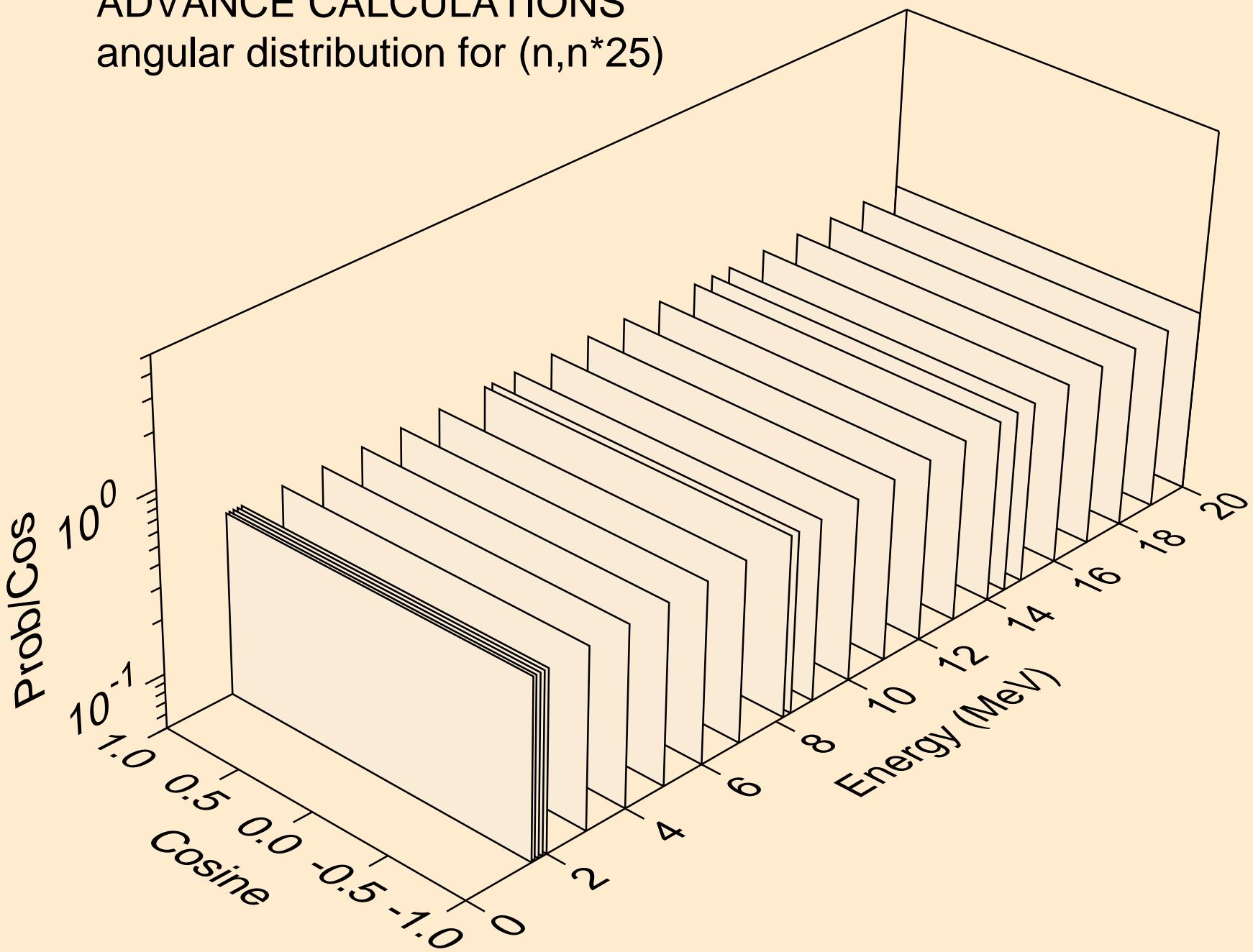
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*24)$



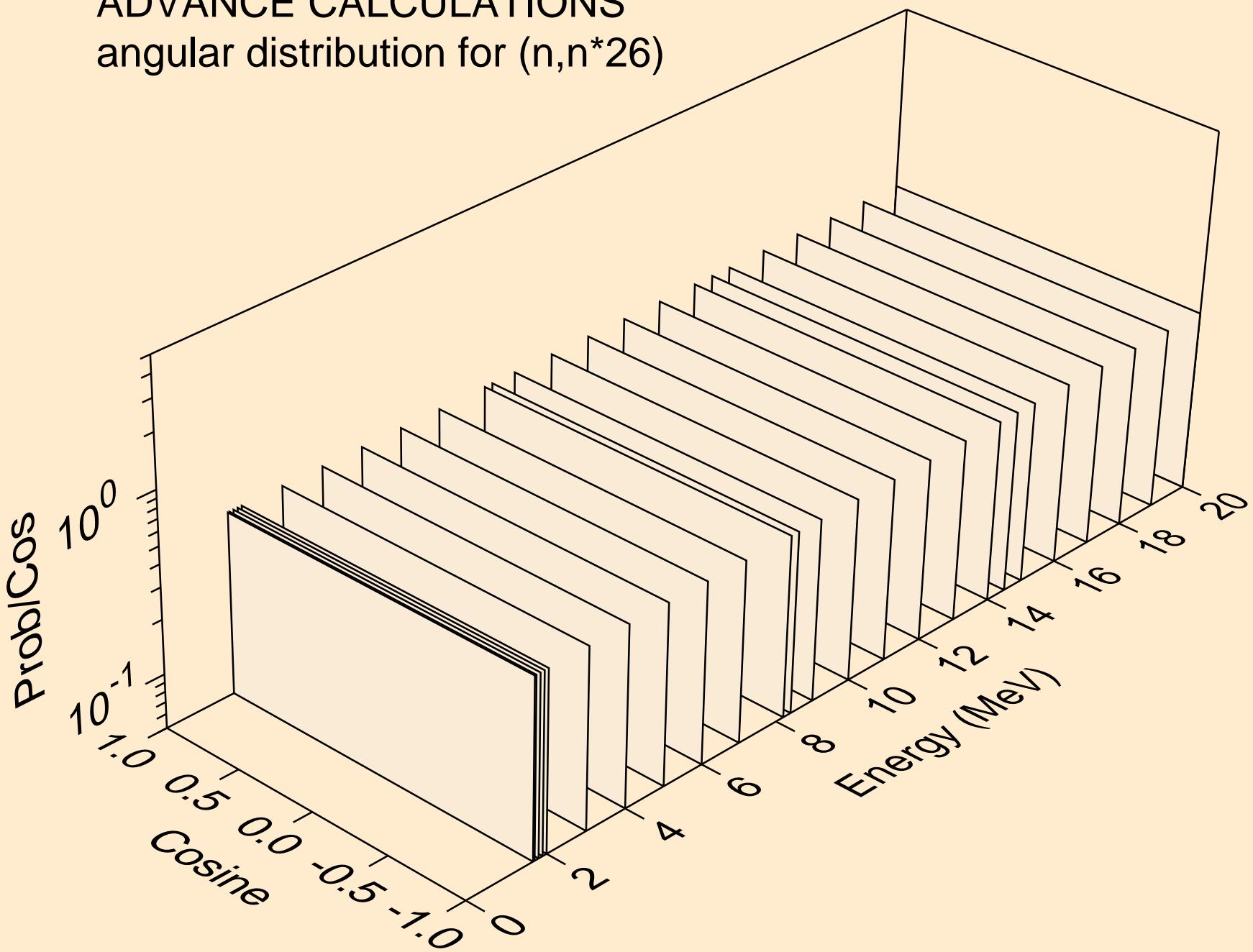
# ADVANCE CALCULATIONS

angular distribution for (n,n\*25)



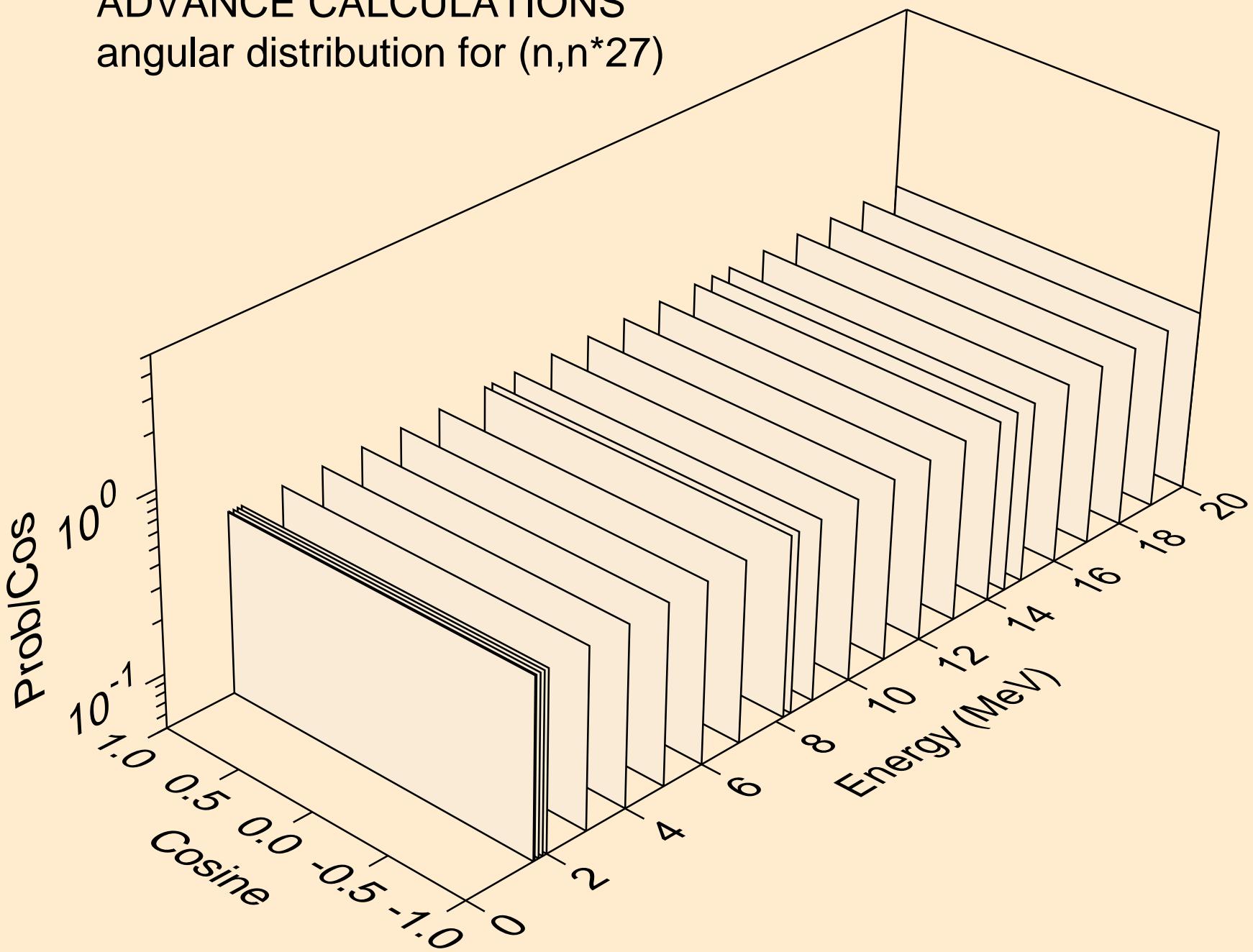
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*26)$



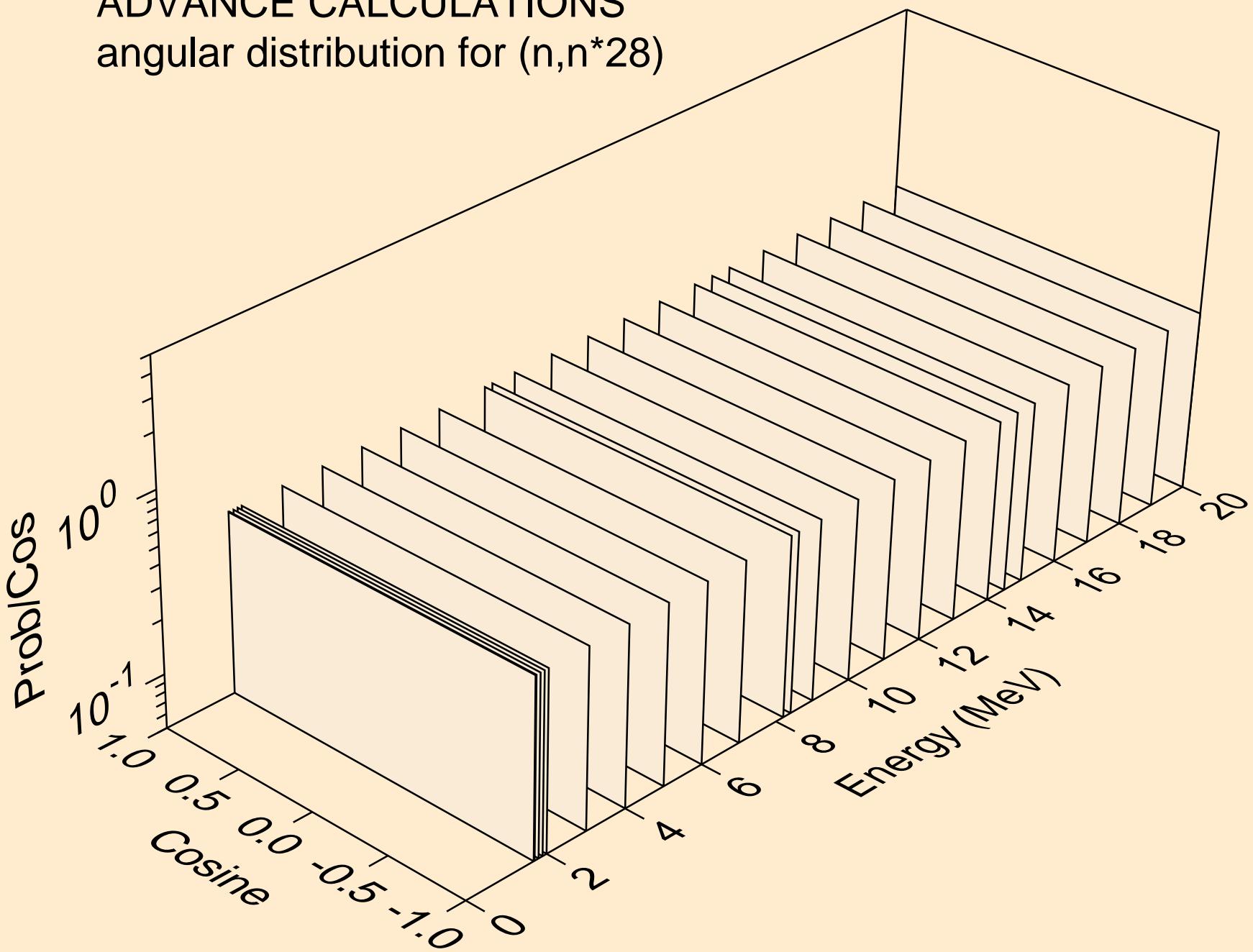
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*27)$



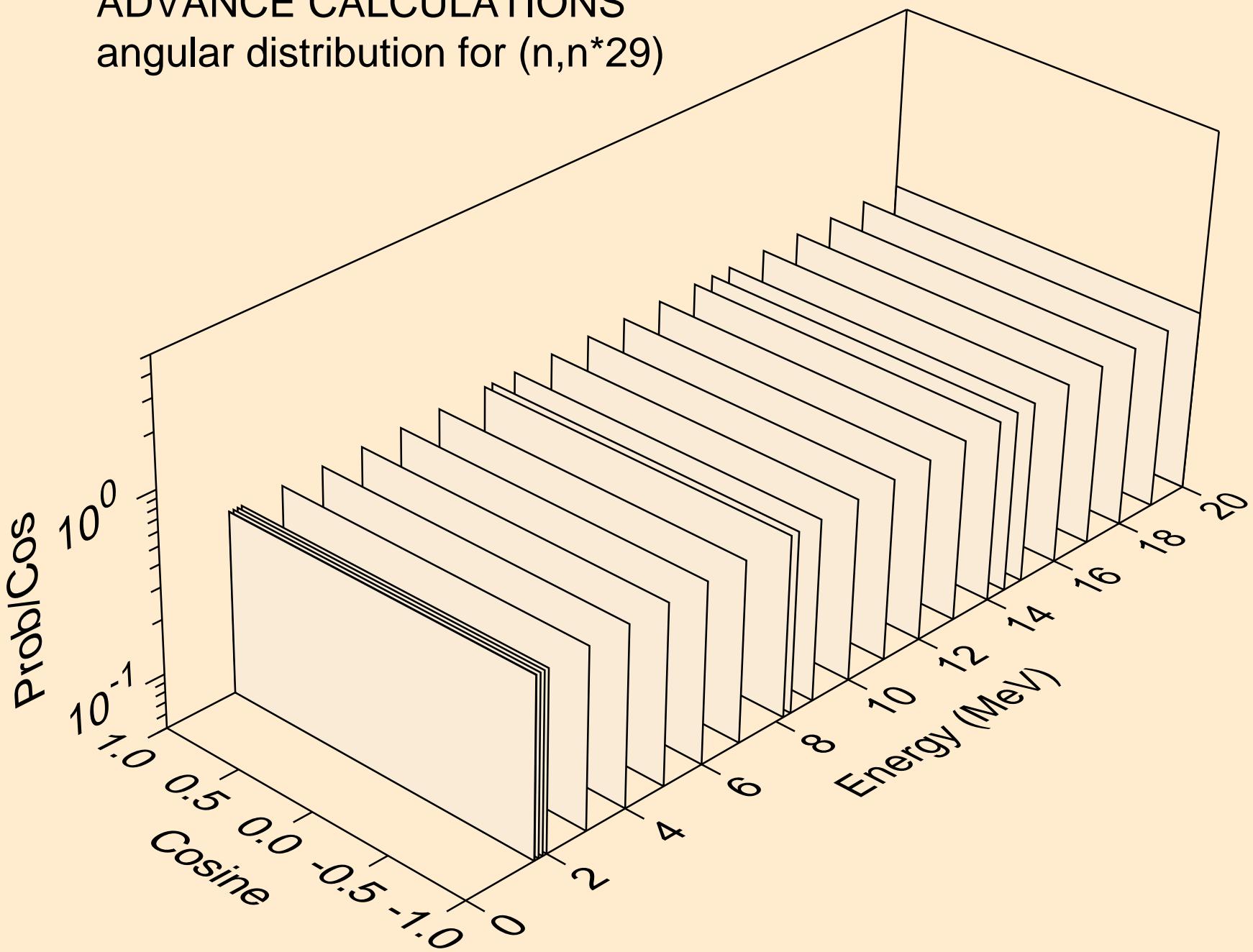
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*28)$



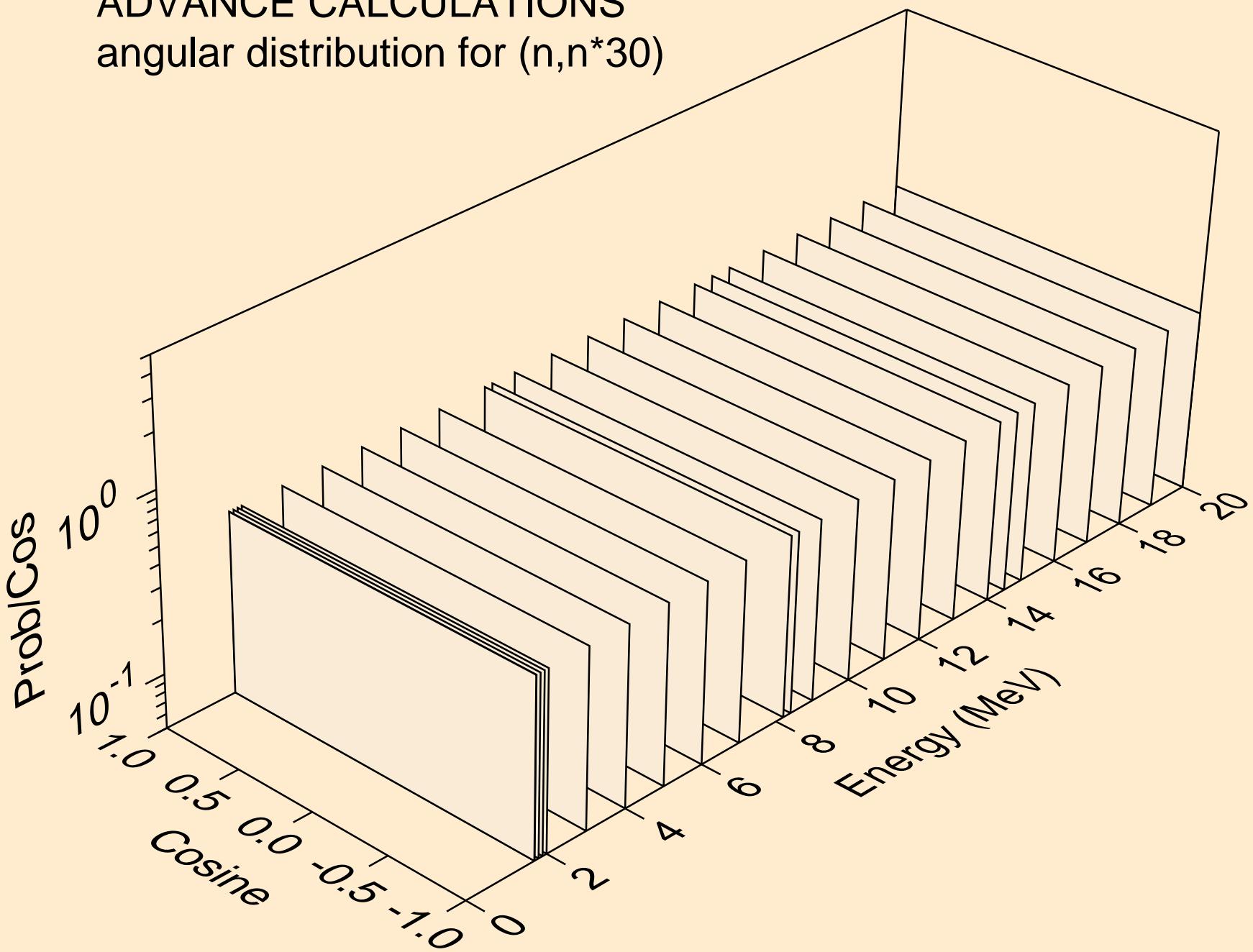
# ADVANCE CALCULATIONS

angular distribution for (n,n\*29)



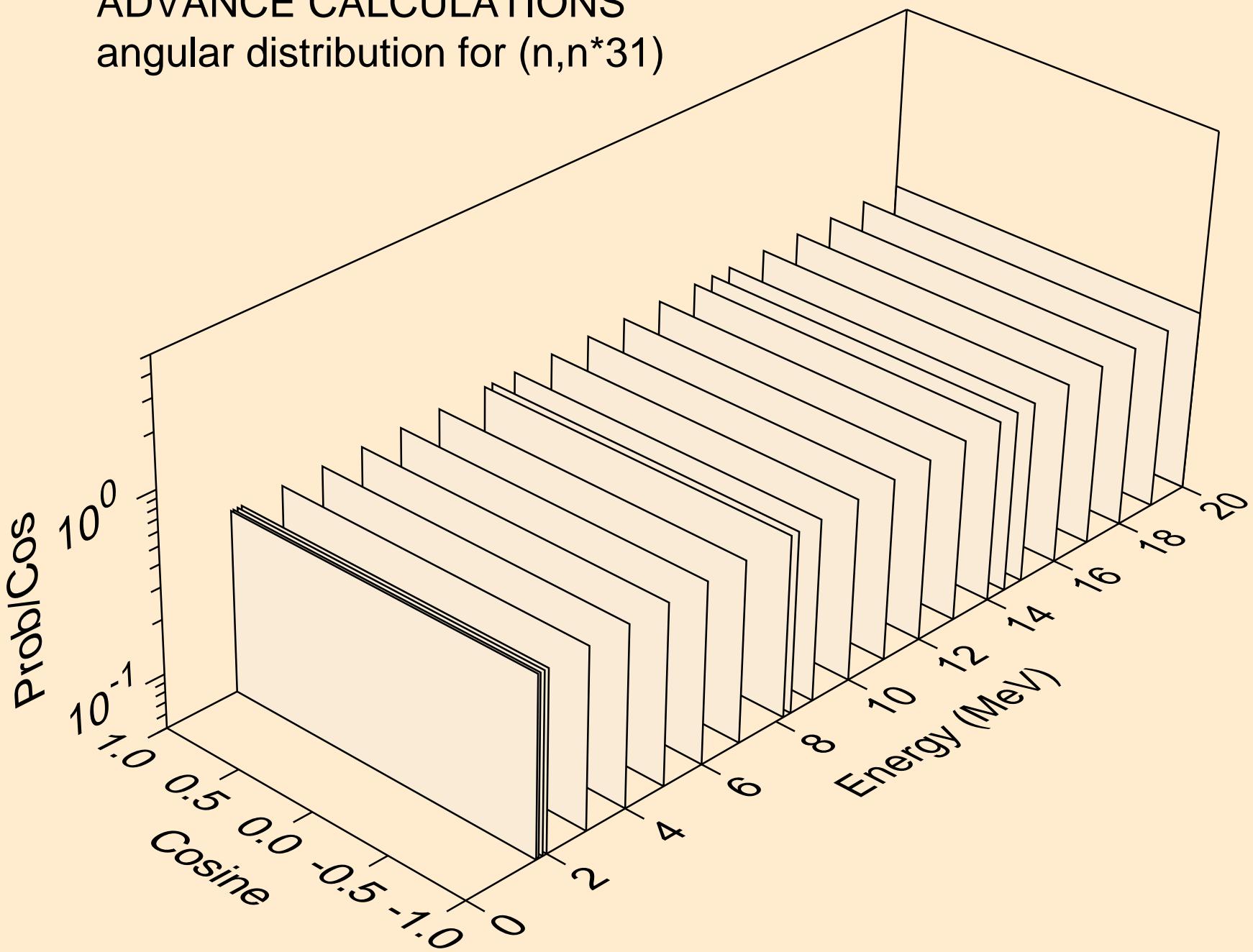
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)30$



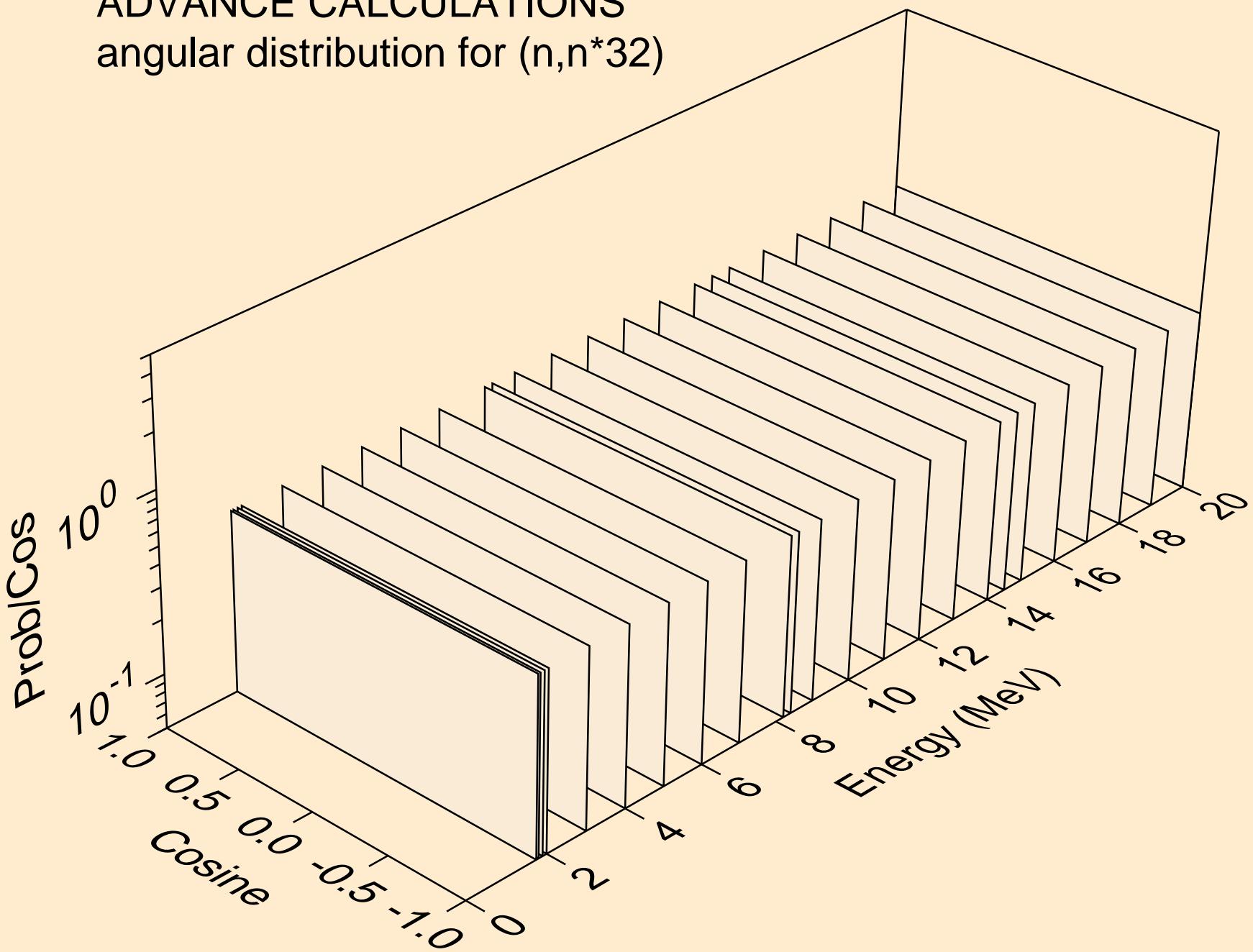
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*31)



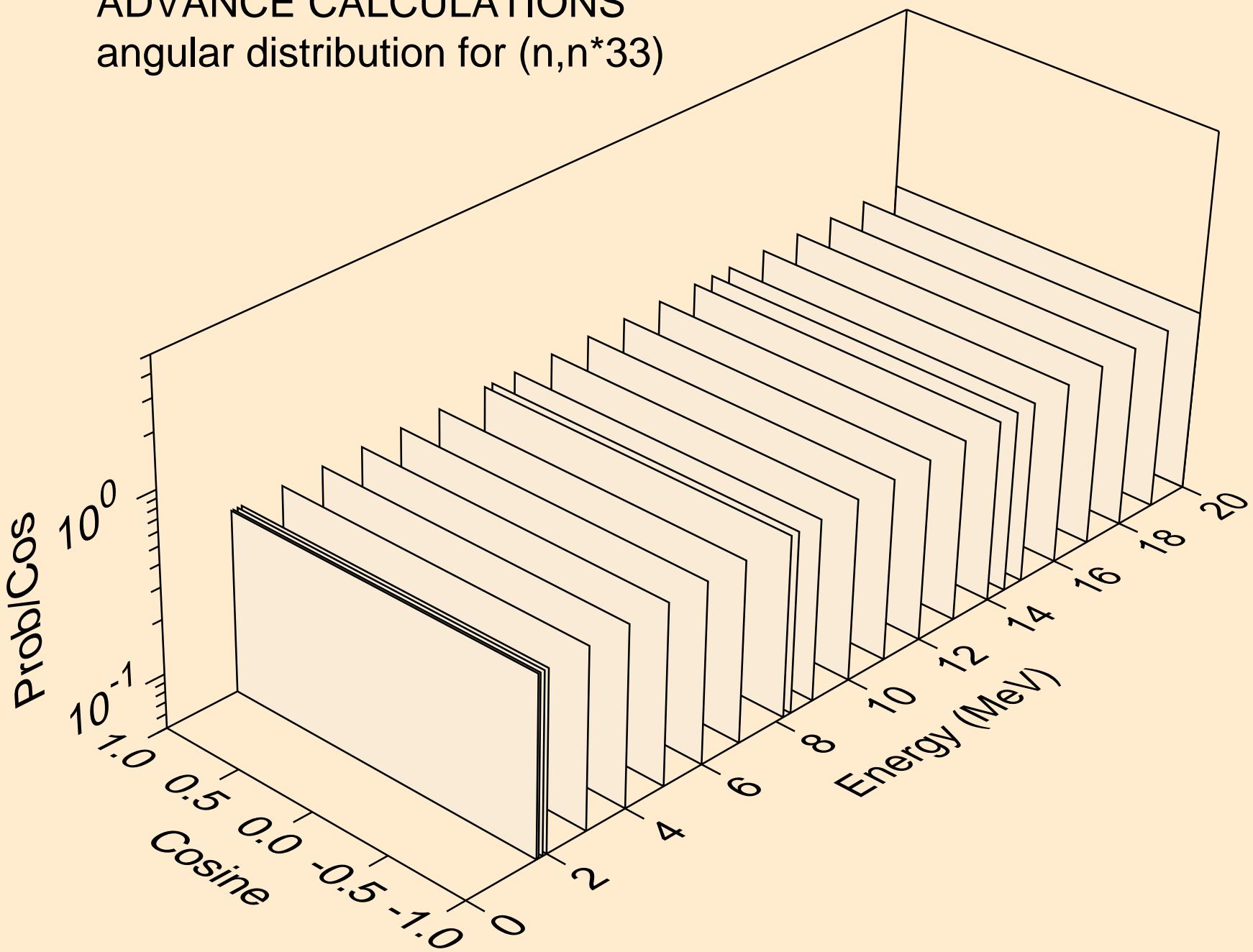
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*32)$



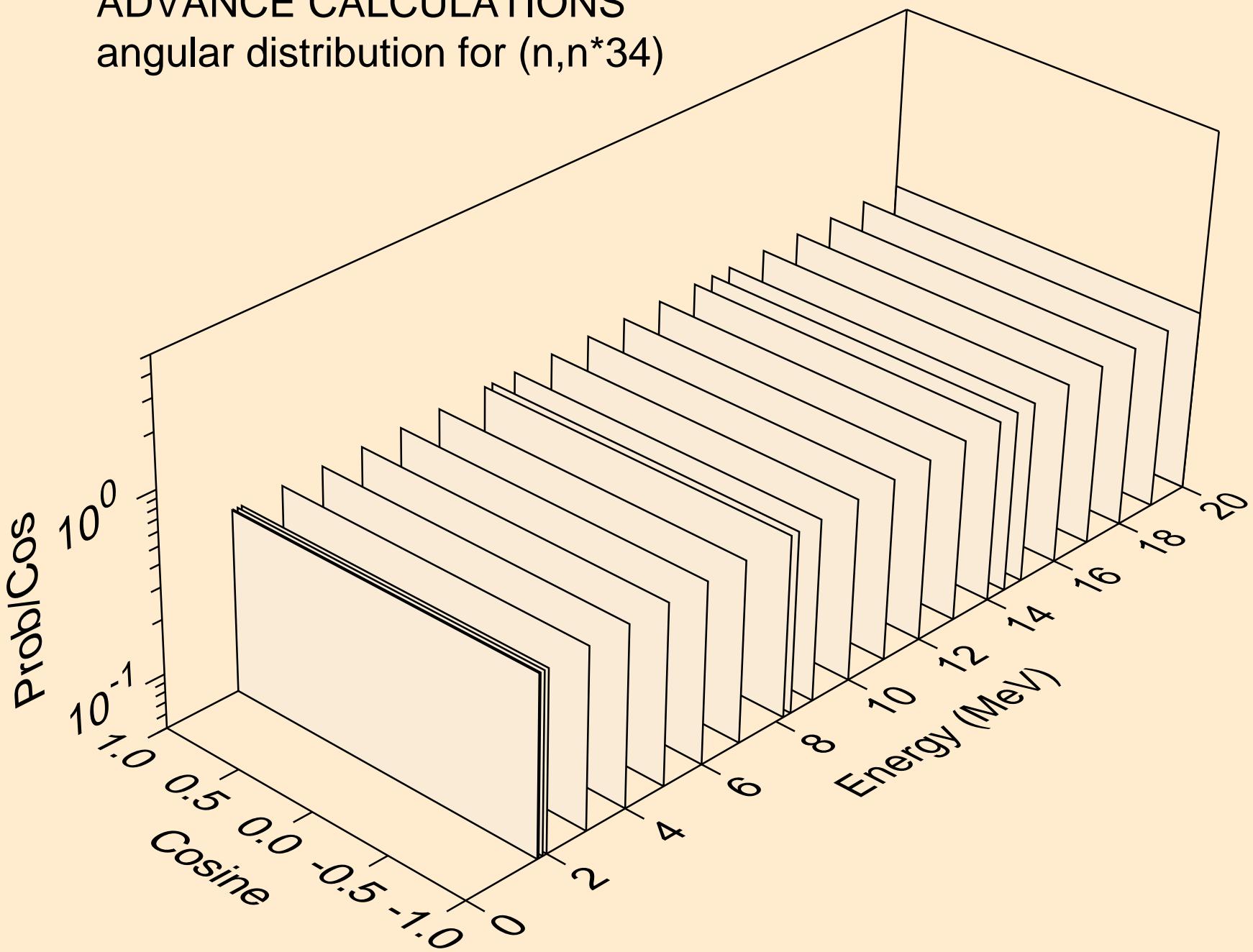
# ADVANCE CALCULATIONS

angular distribution for (n,n\*33)



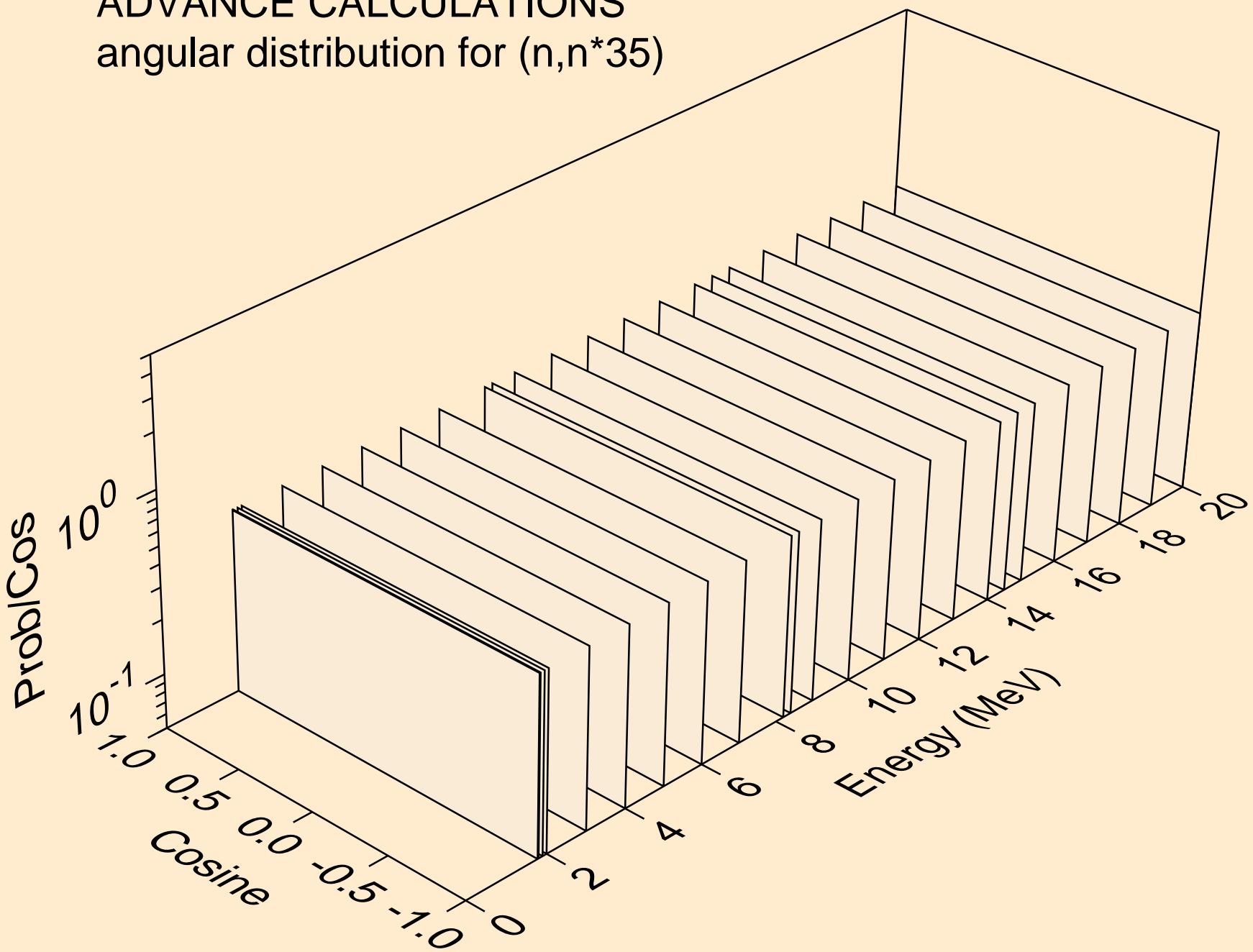
# ADVANCE CALCULATIONS

angular distribution for (n,n\*34)



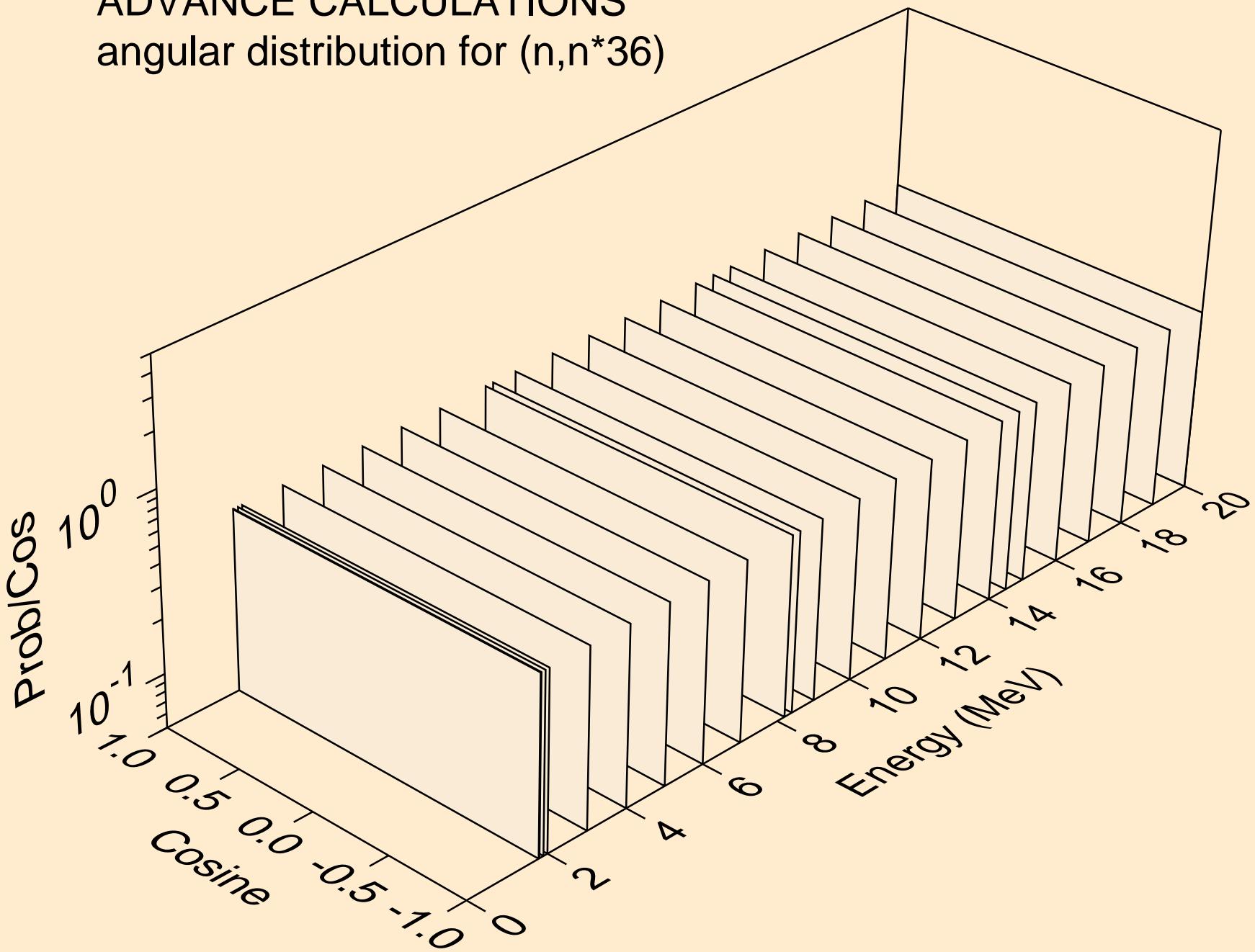
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*35)



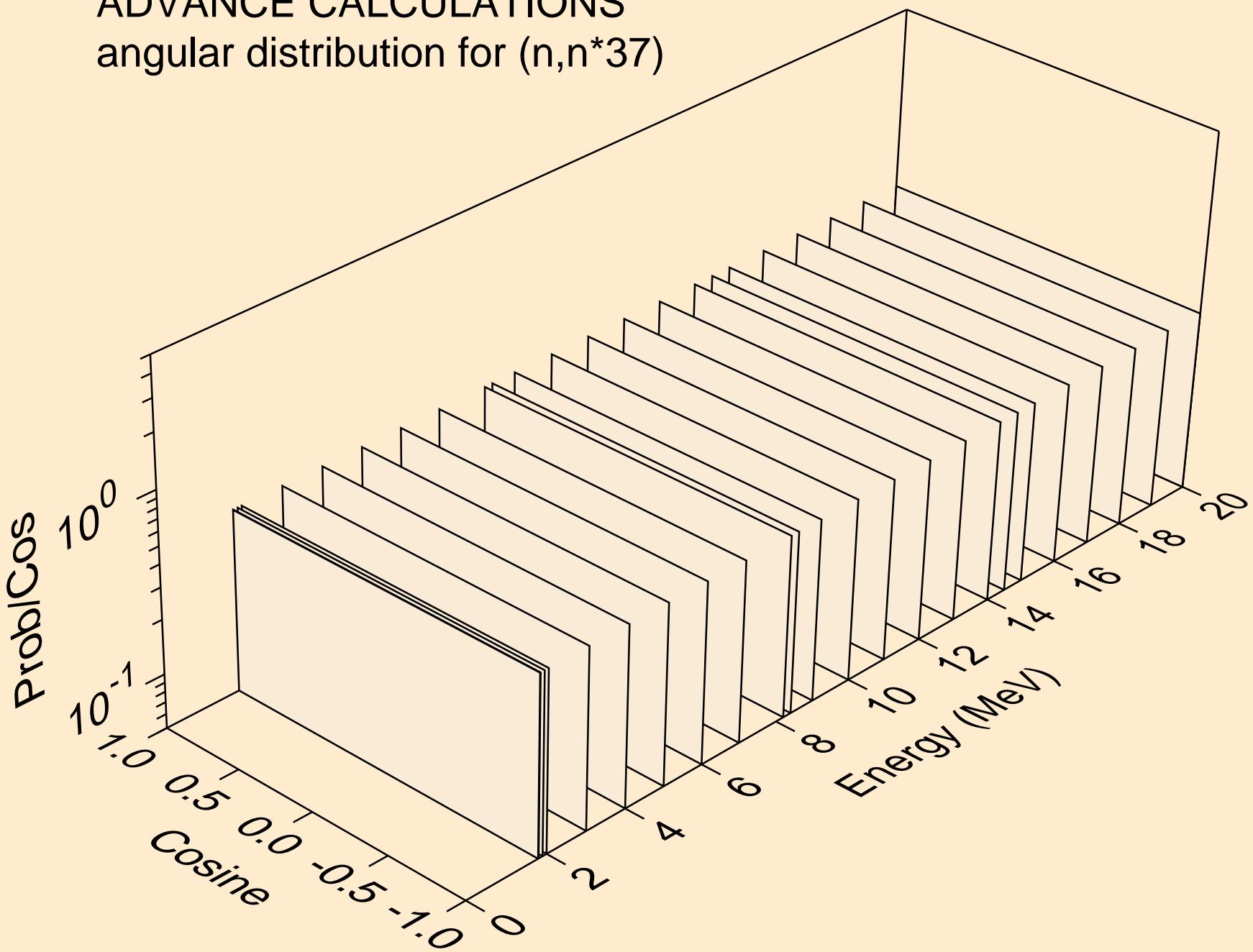
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*36)$



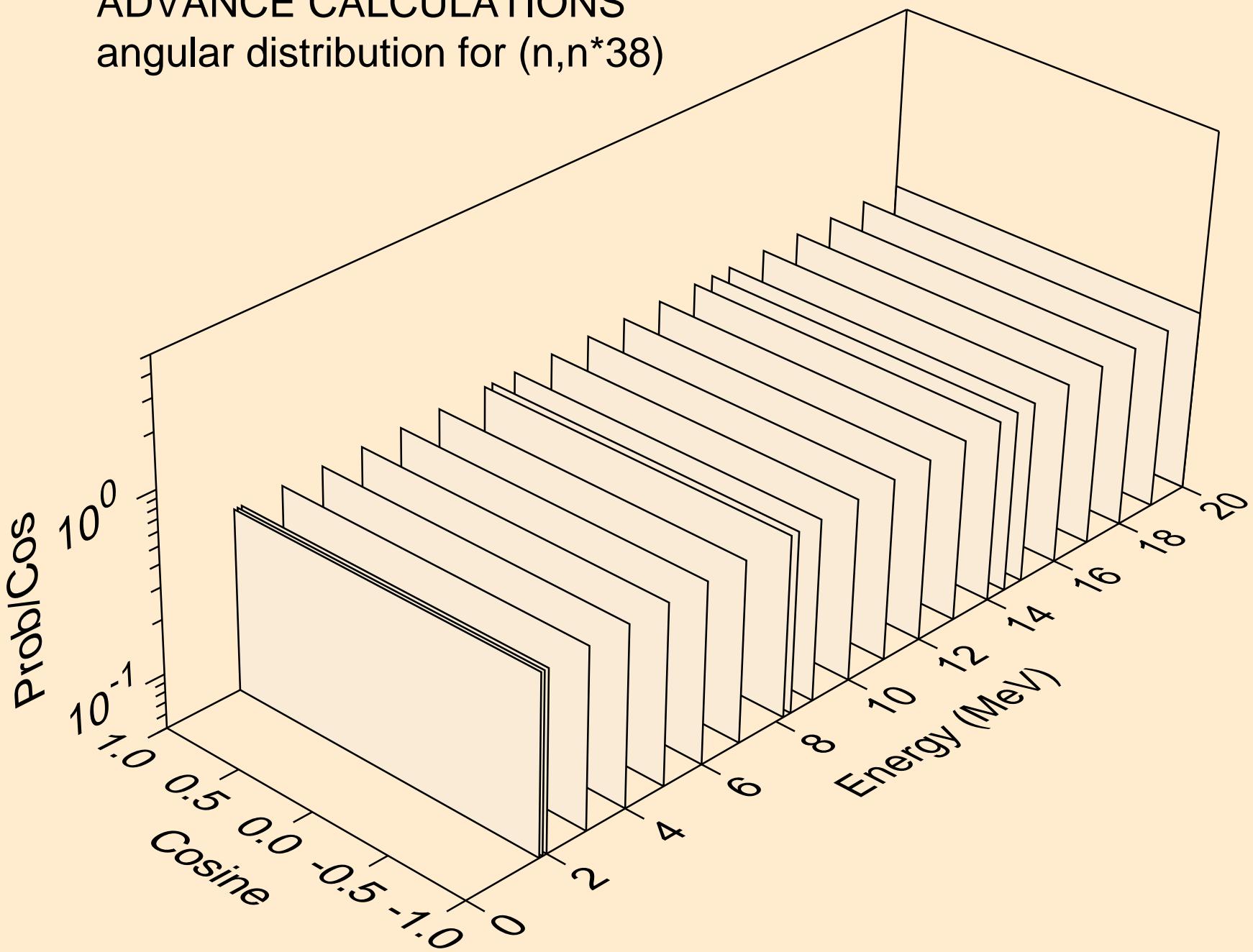
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*37)$



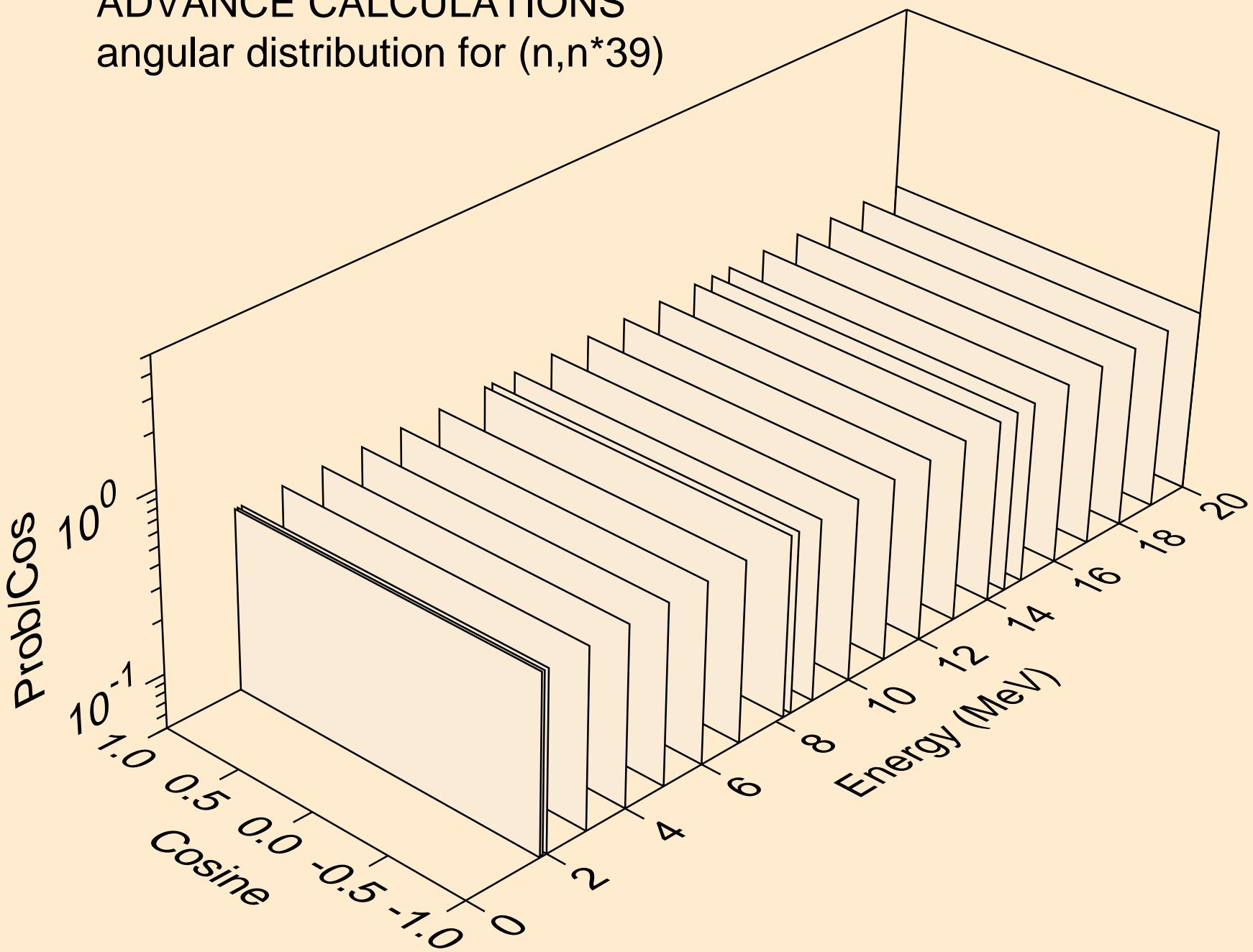
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*38)$



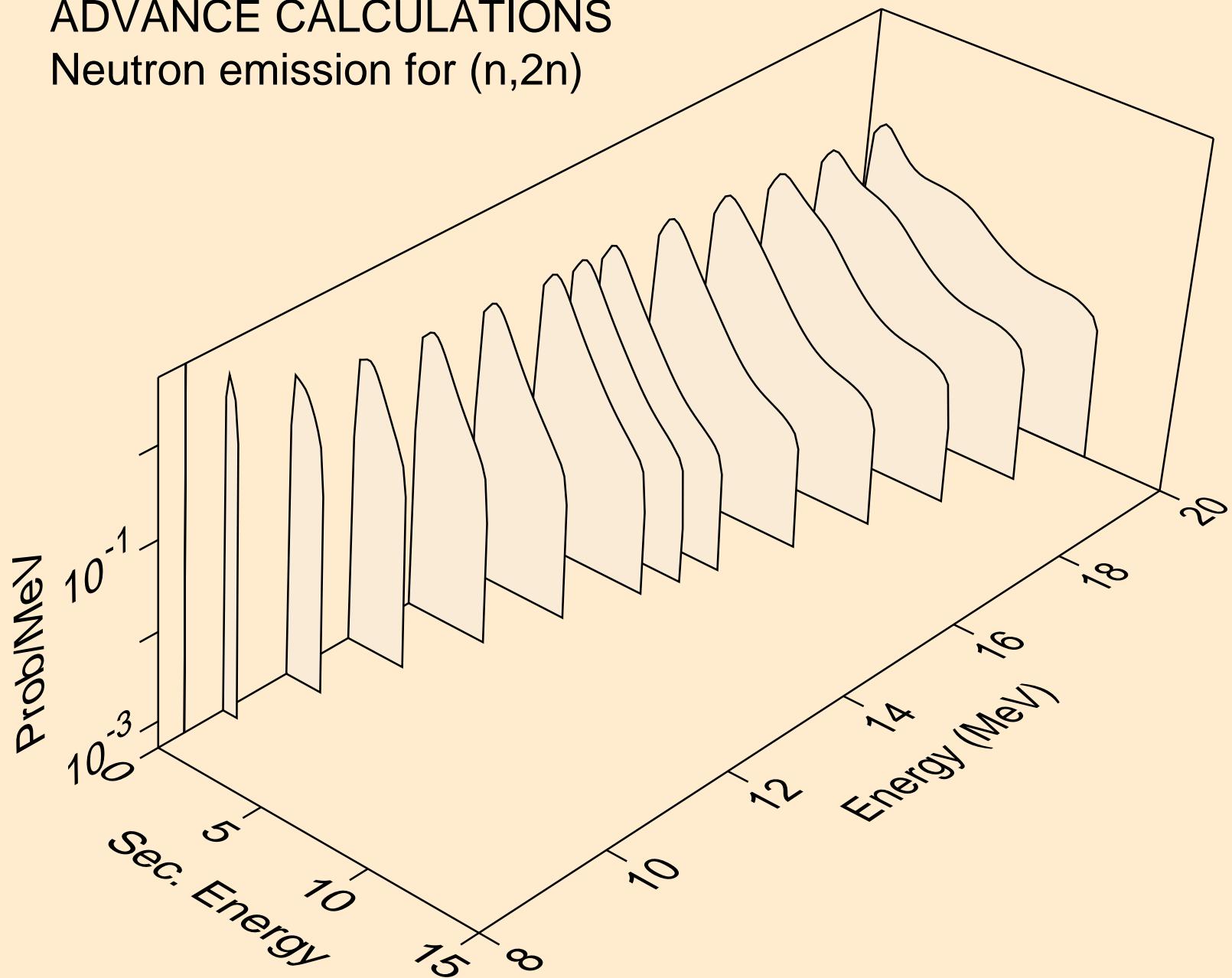
# ADVANCE CALCULATIONS

angular distribution for (n,n\*39)



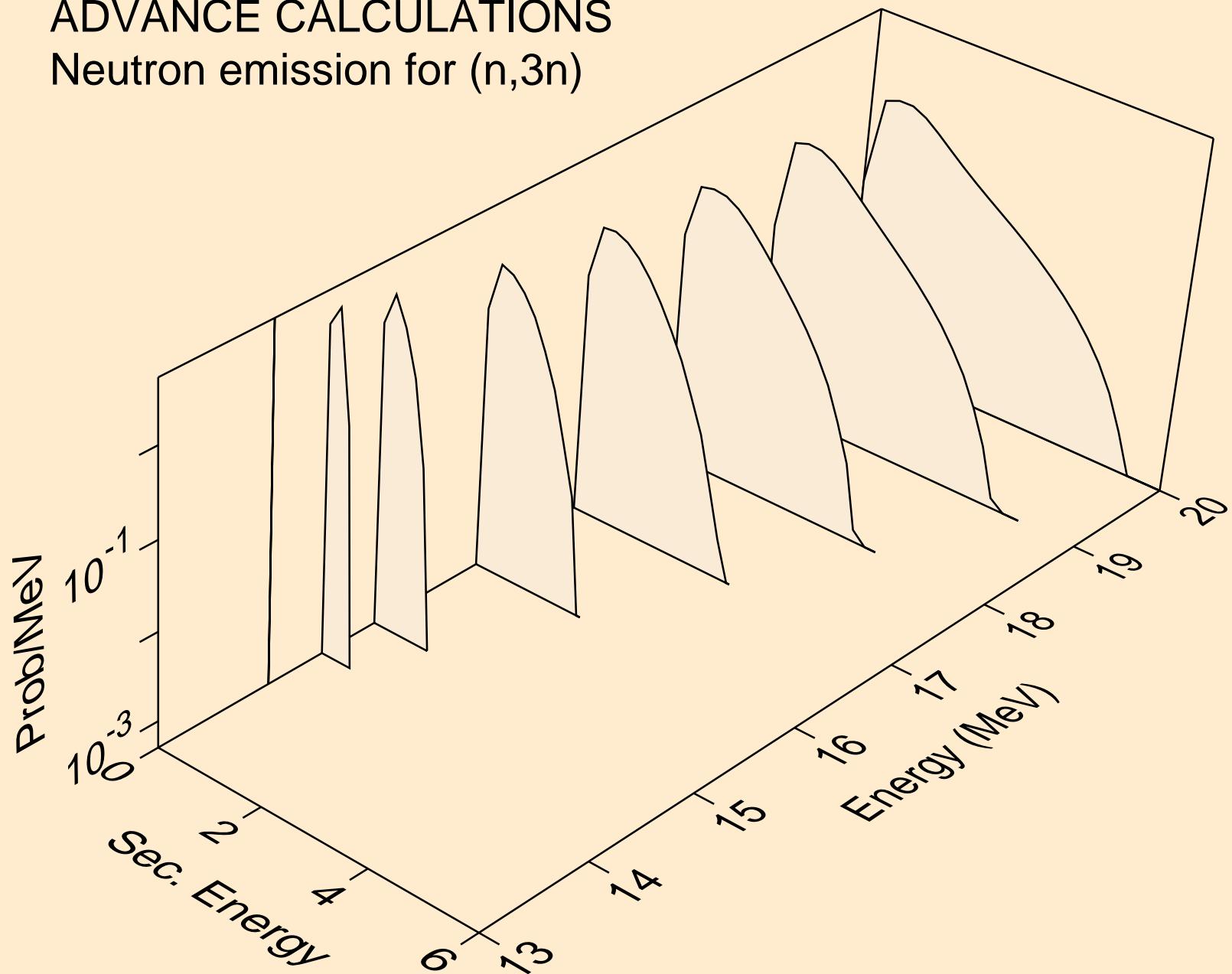
# ADVANCE CALCULATIONS

## Neutron emission for (n,2n)



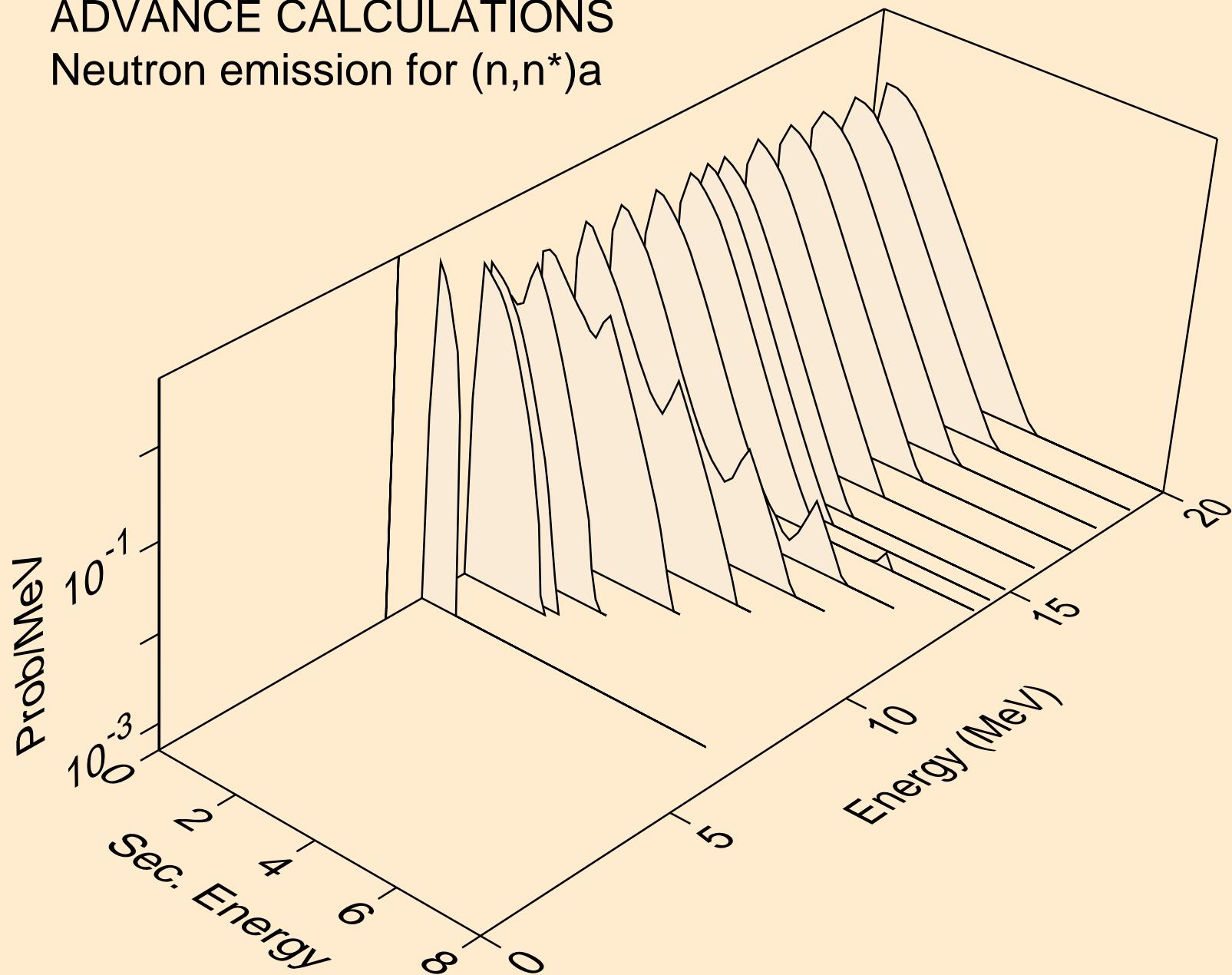
# ADVANCE CALCULATIONS

## Neutron emission for (n,3n)



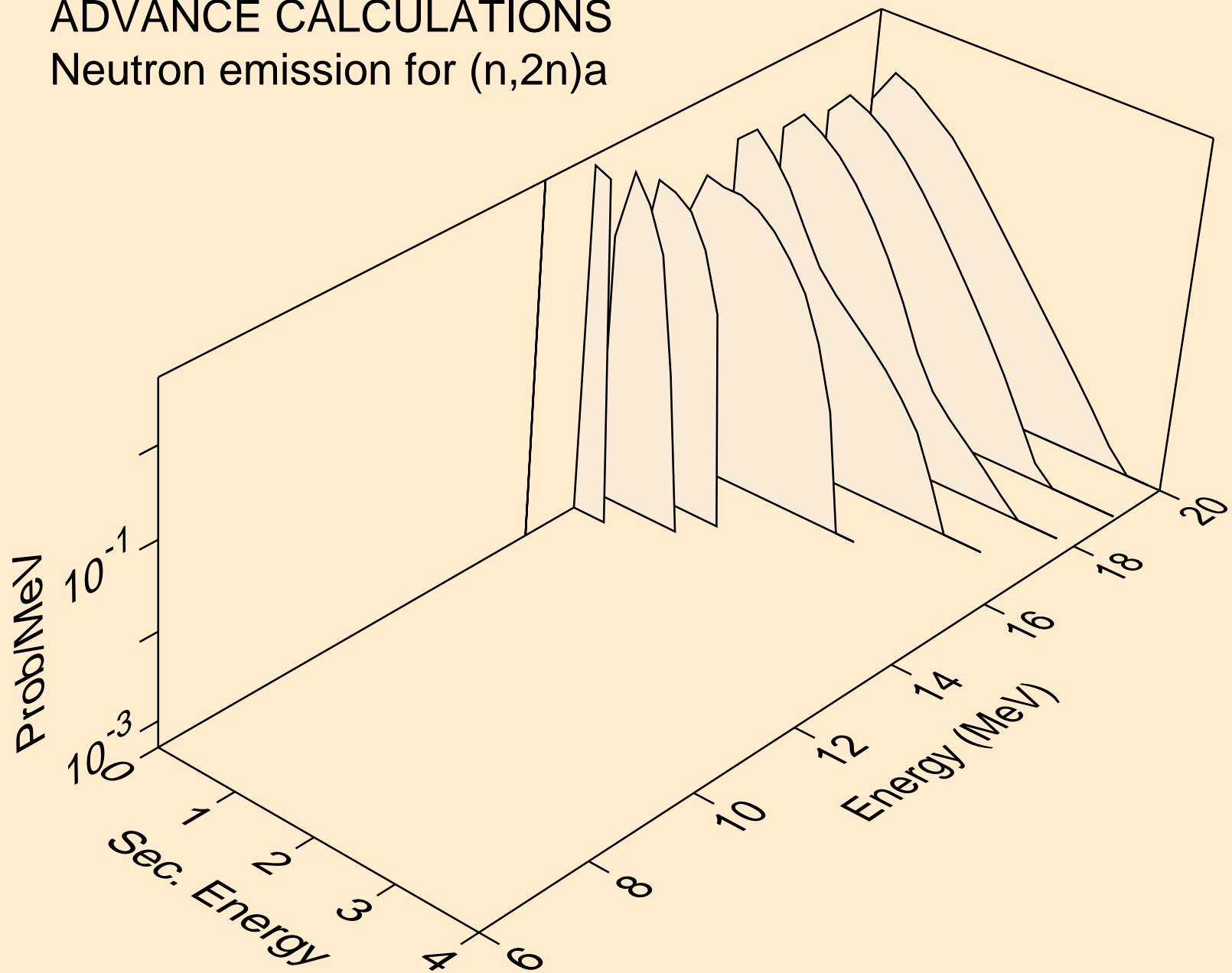
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)a$



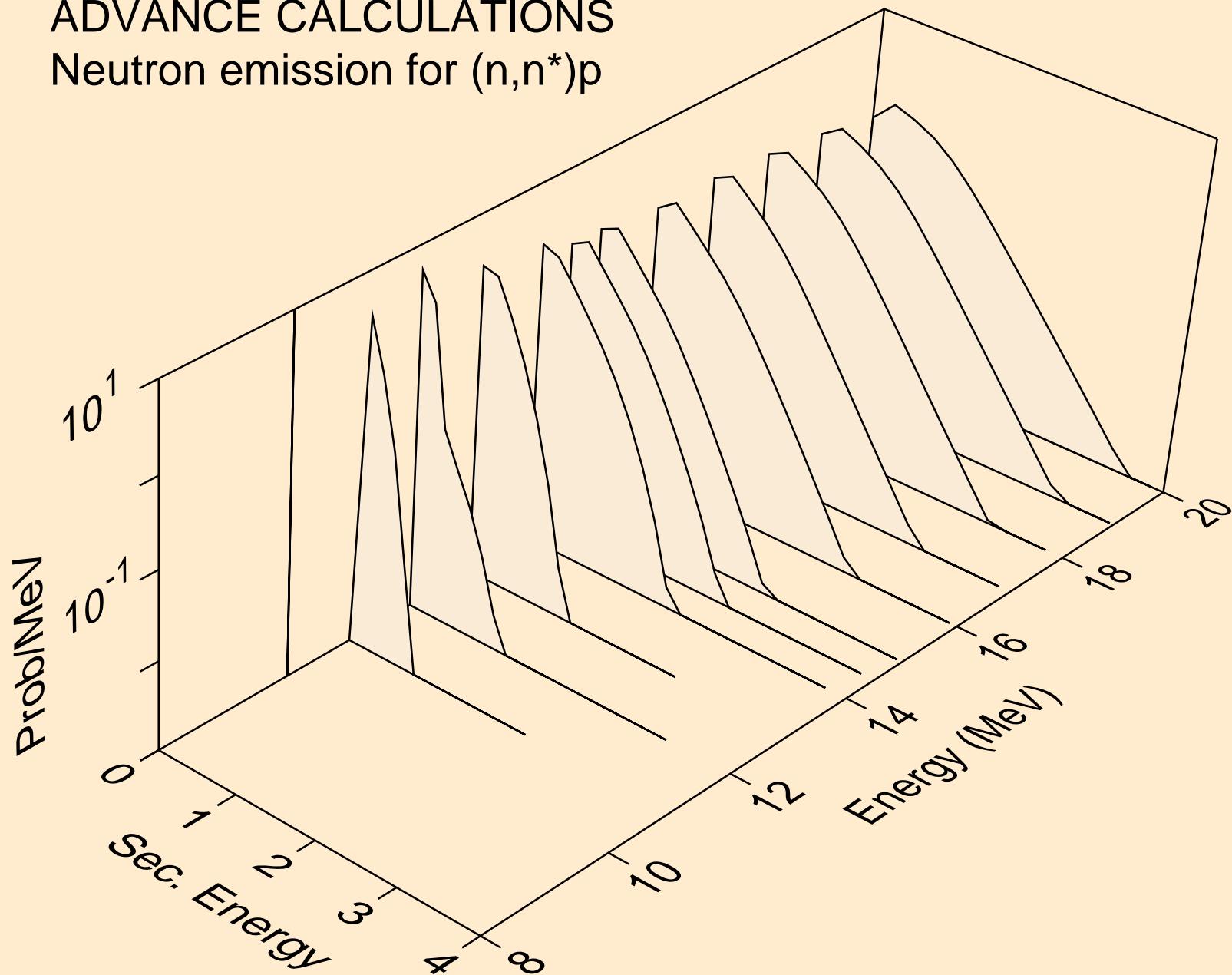
# ADVANCE CALCULATIONS

## Neutron emission for $(n,2n)a$



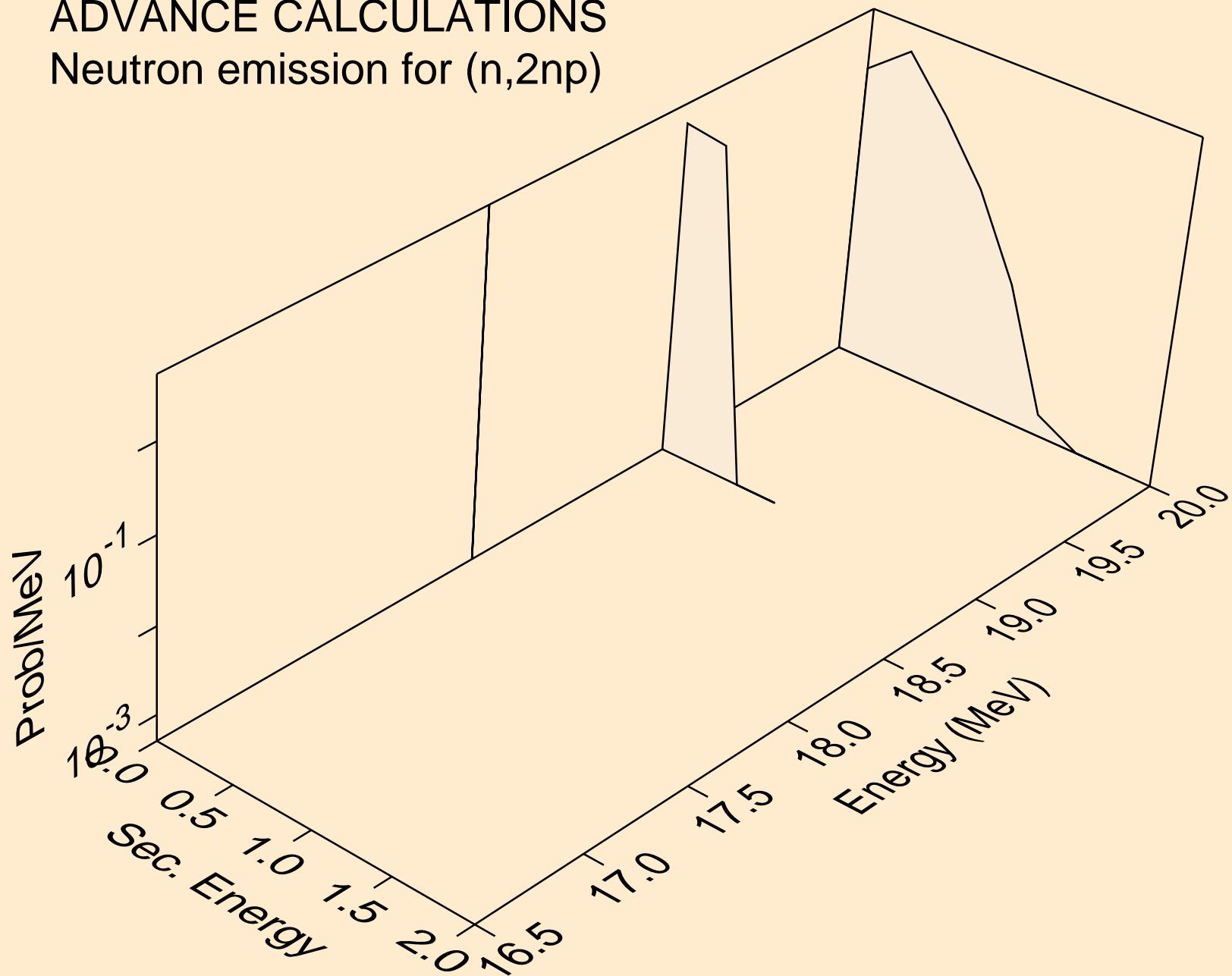
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)p$



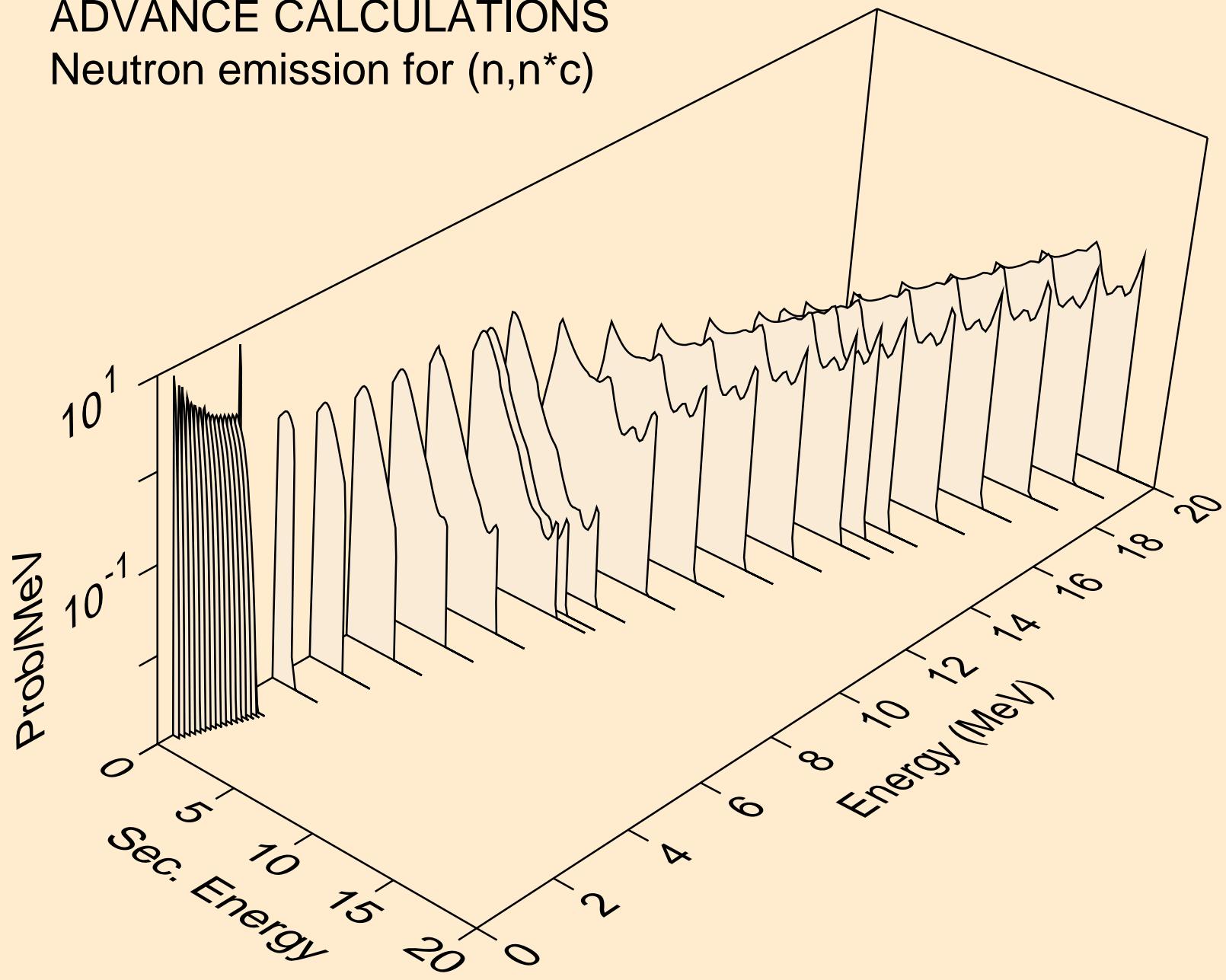
# ADVANCE CALCULATIONS

## Neutron emission for (n,2np)



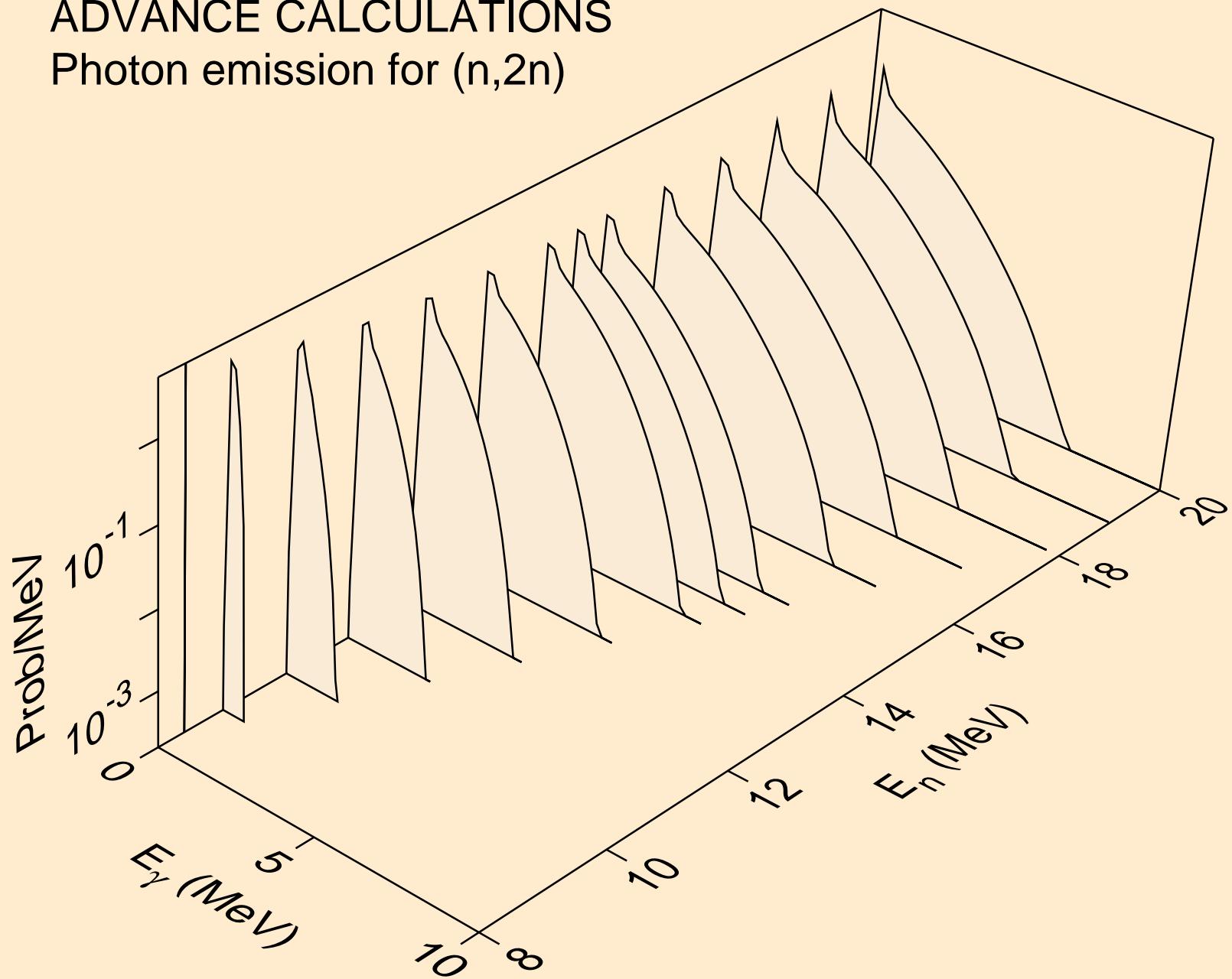
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*c)$



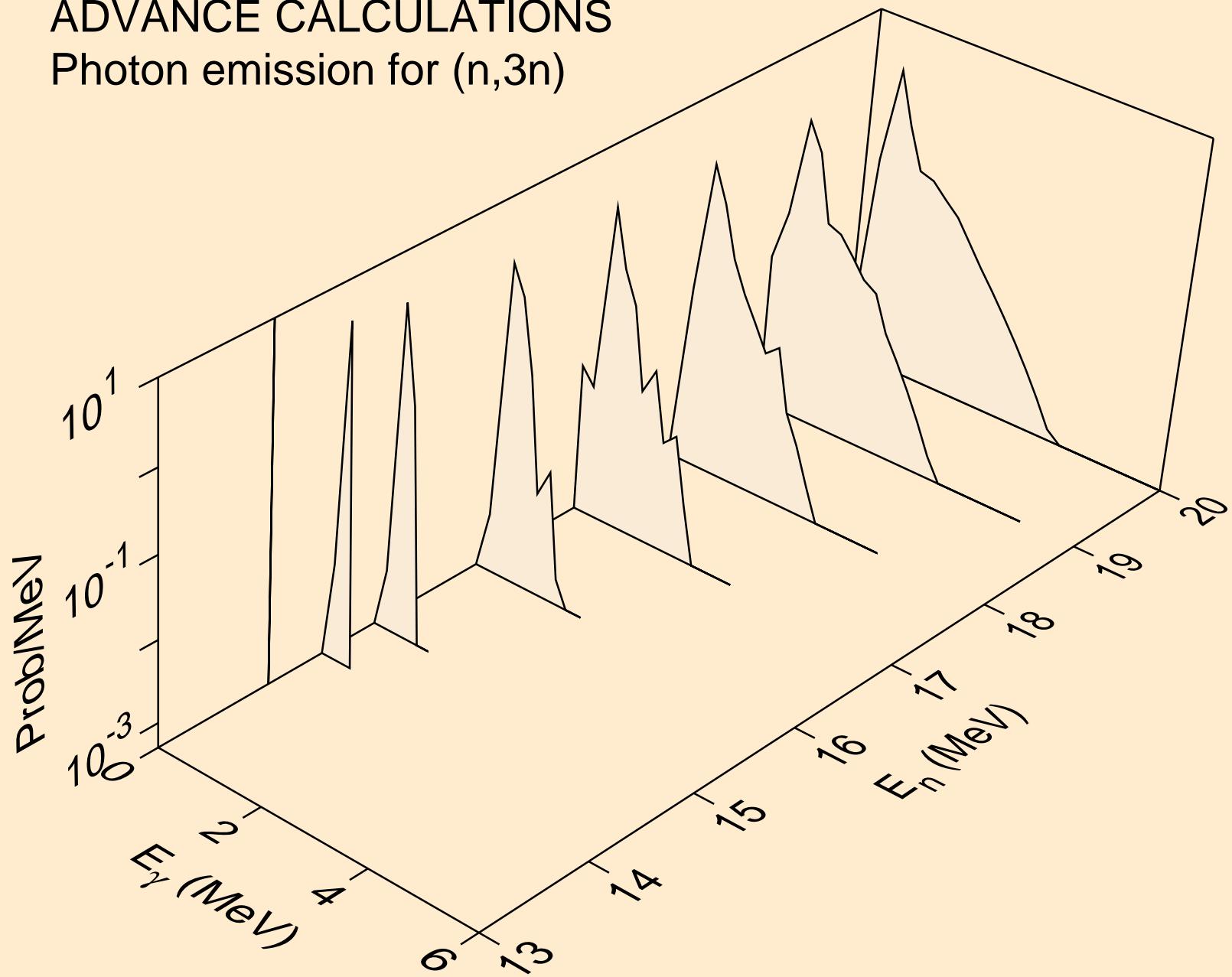
# ADVANCE CALCULATIONS

## Photon emission for (n,2n)



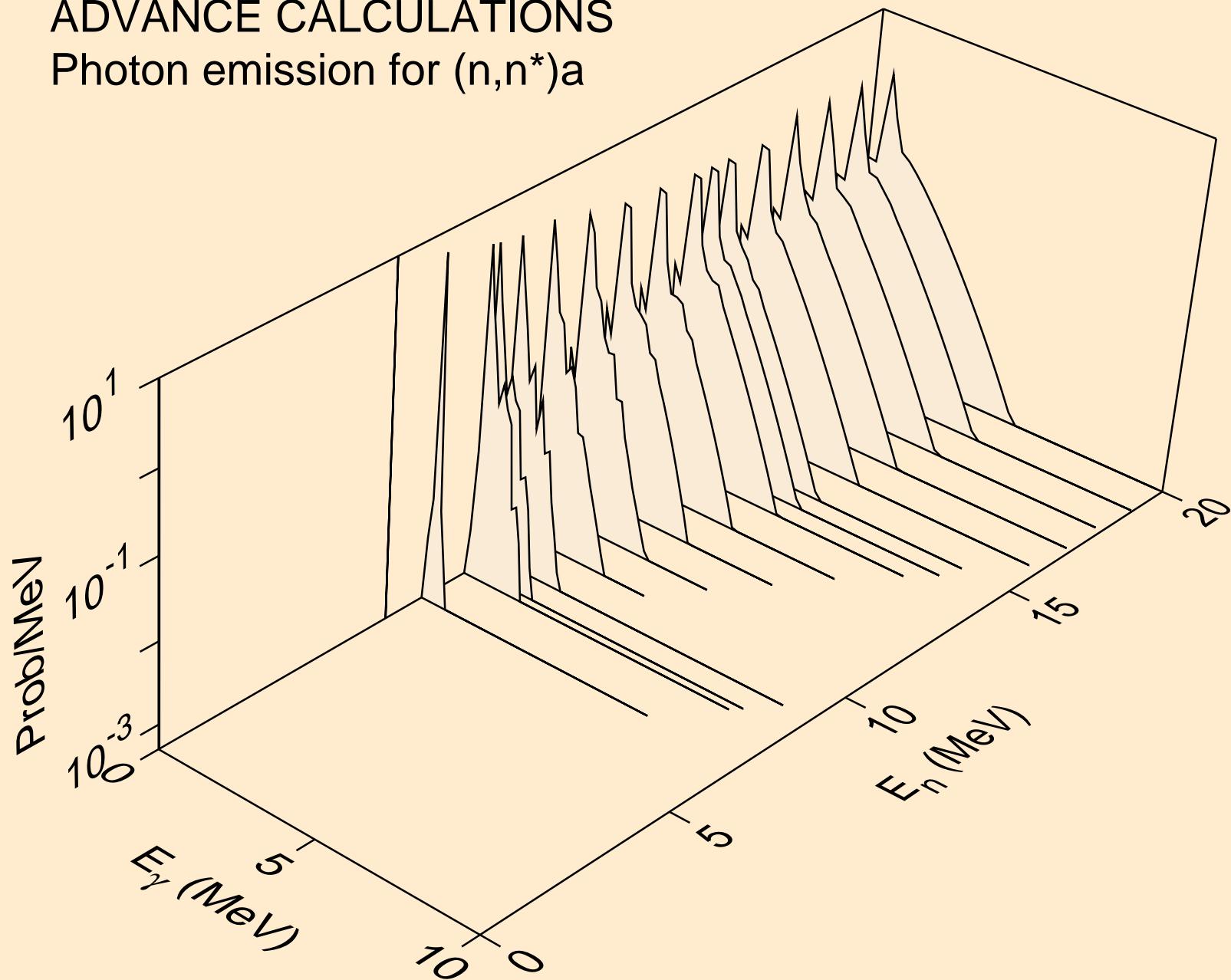
# ADVANCE CALCULATIONS

## Photon emission for (n,3n)



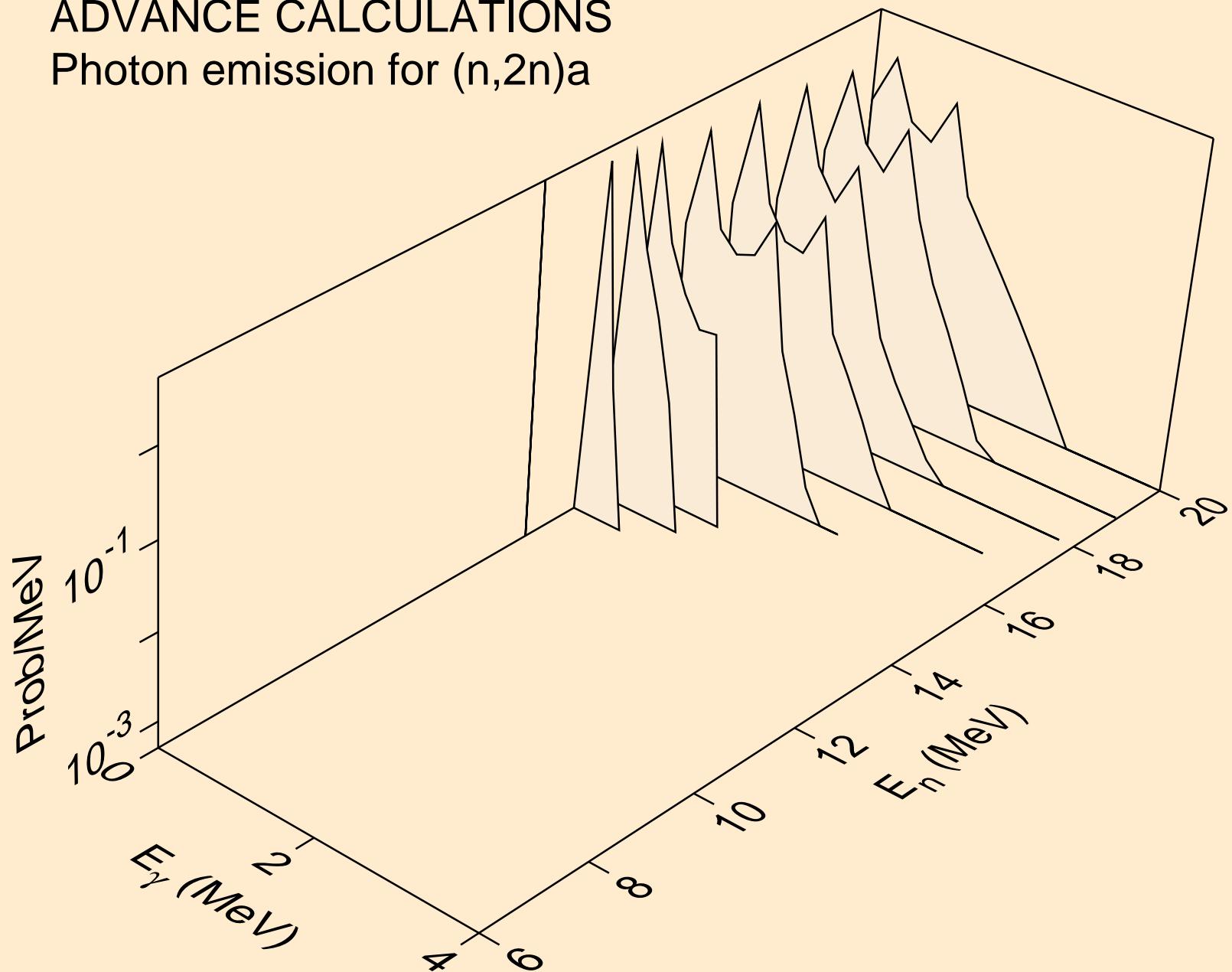
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)a$



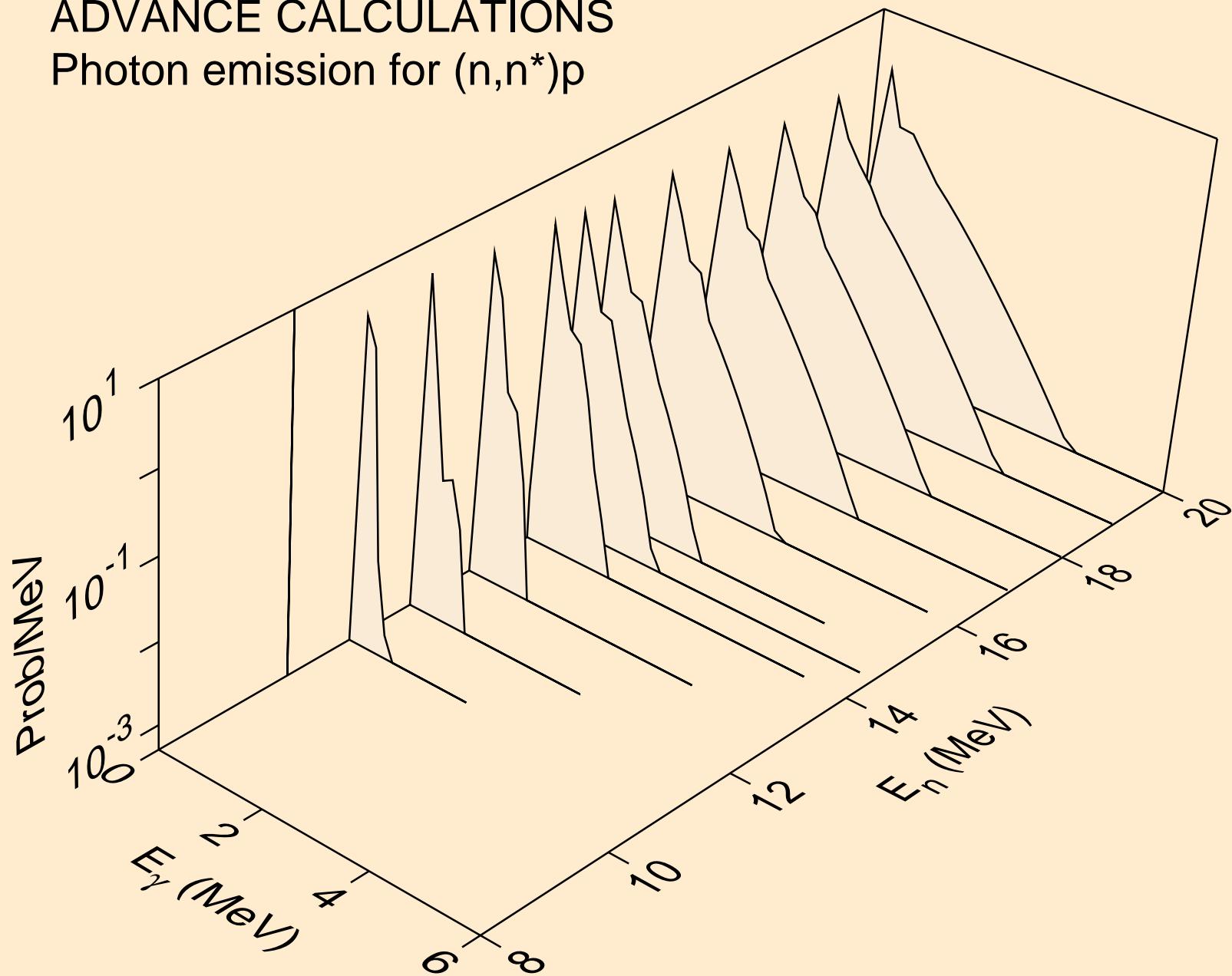
# ADVANCE CALCULATIONS

## Photon emission for (n,2n)a



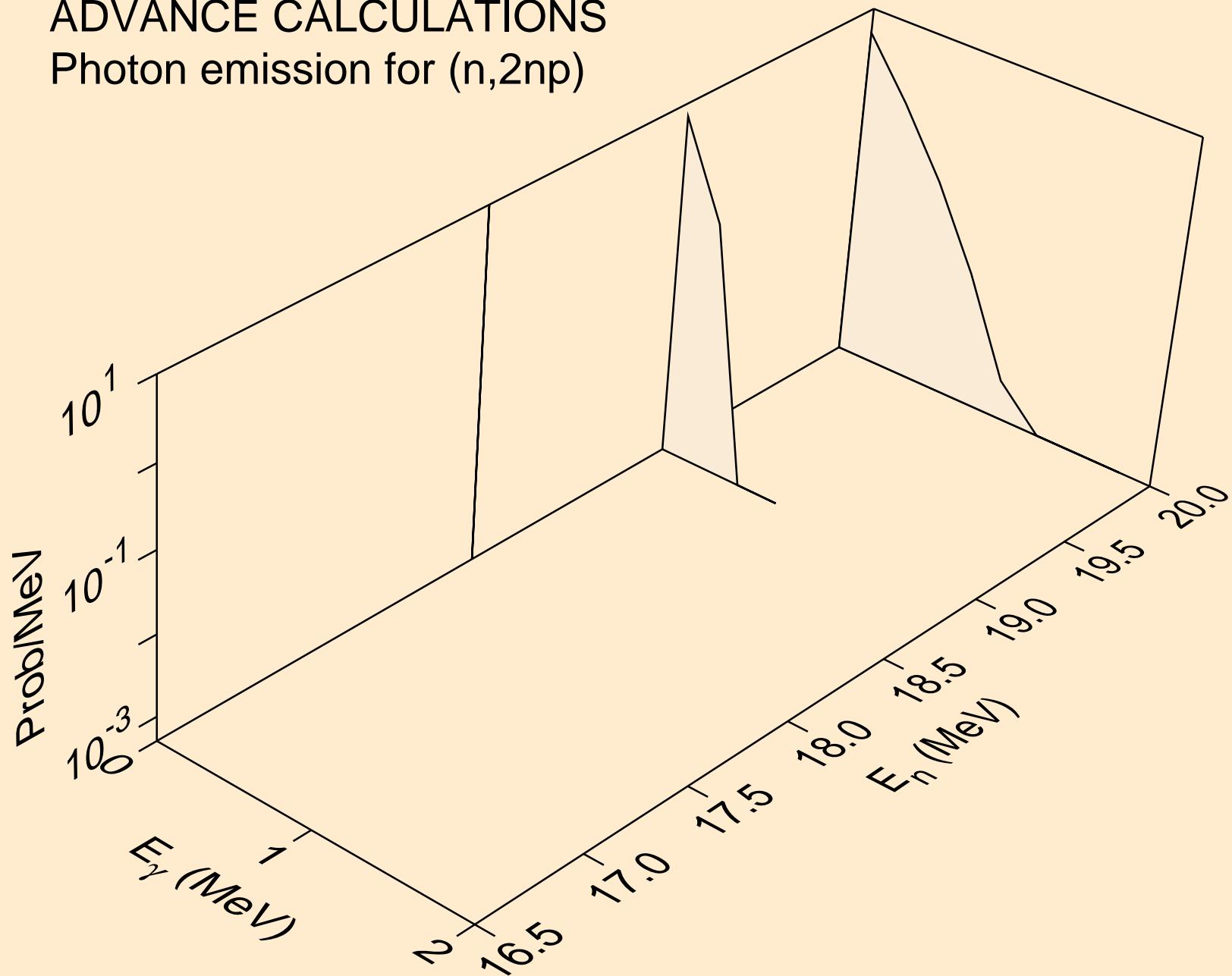
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)p$



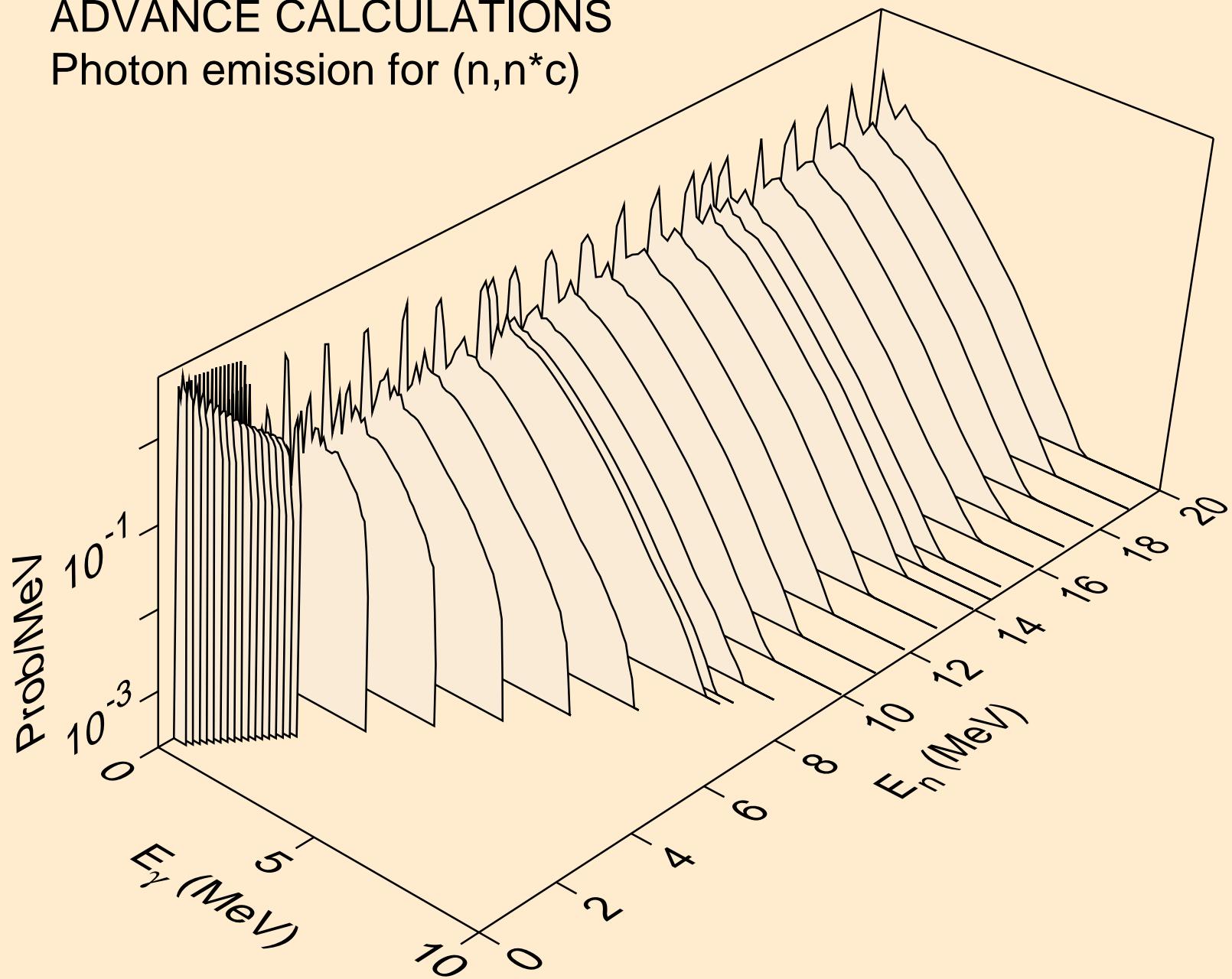
# ADVANCE CALCULATIONS

## Photon emission for (n,2np)



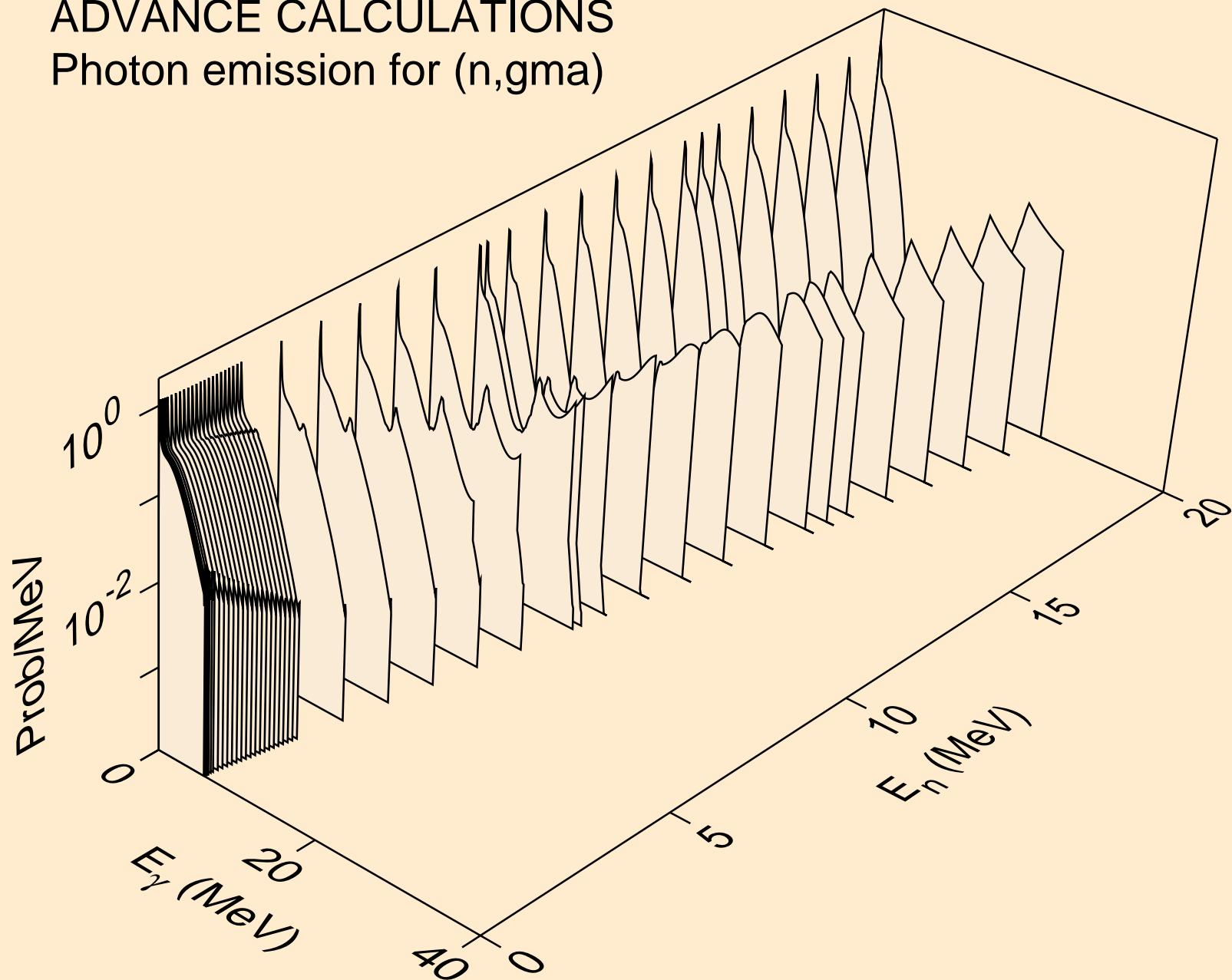
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*c)$



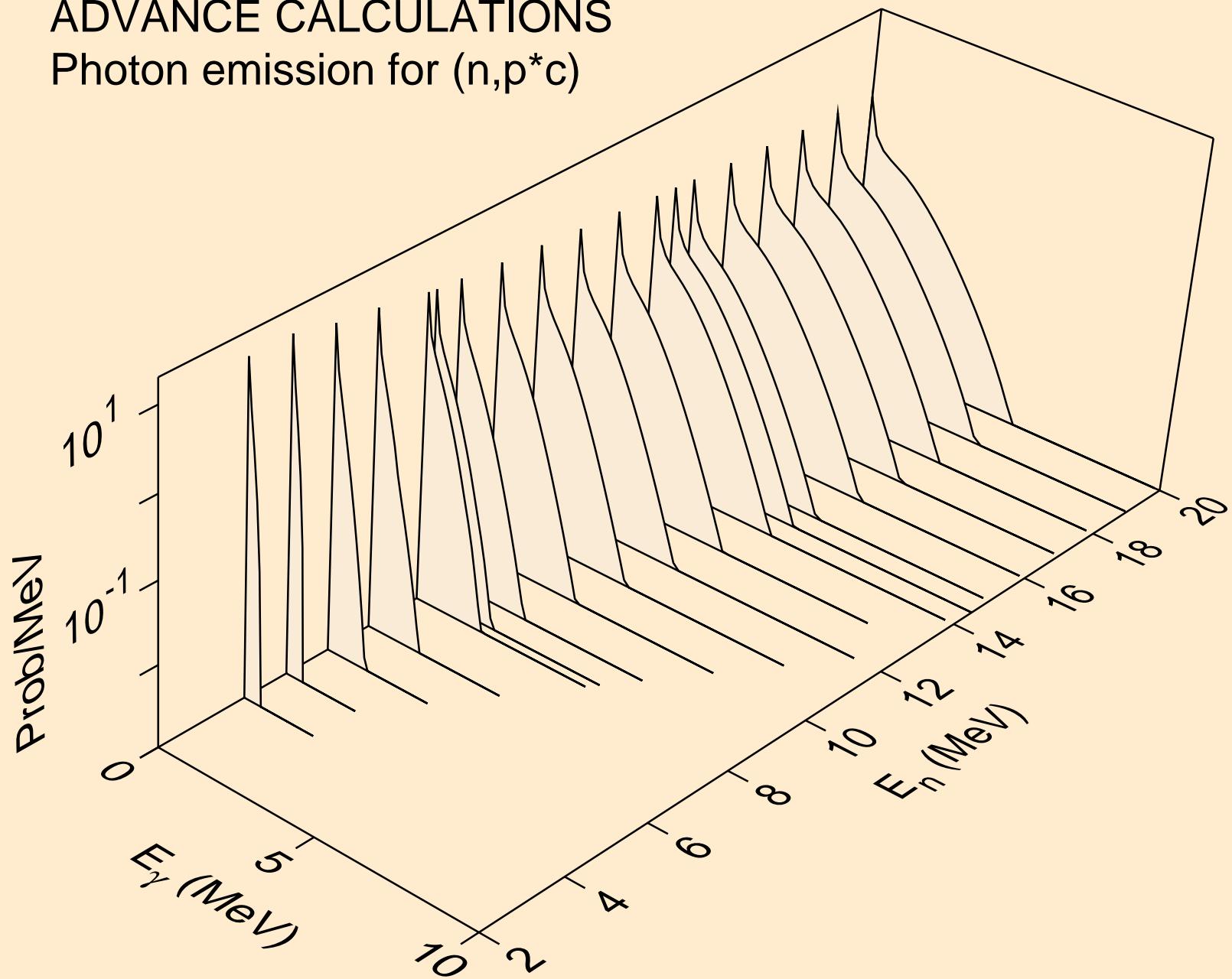
# ADVANCE CALCULATIONS

## Photon emission for (n,gma)



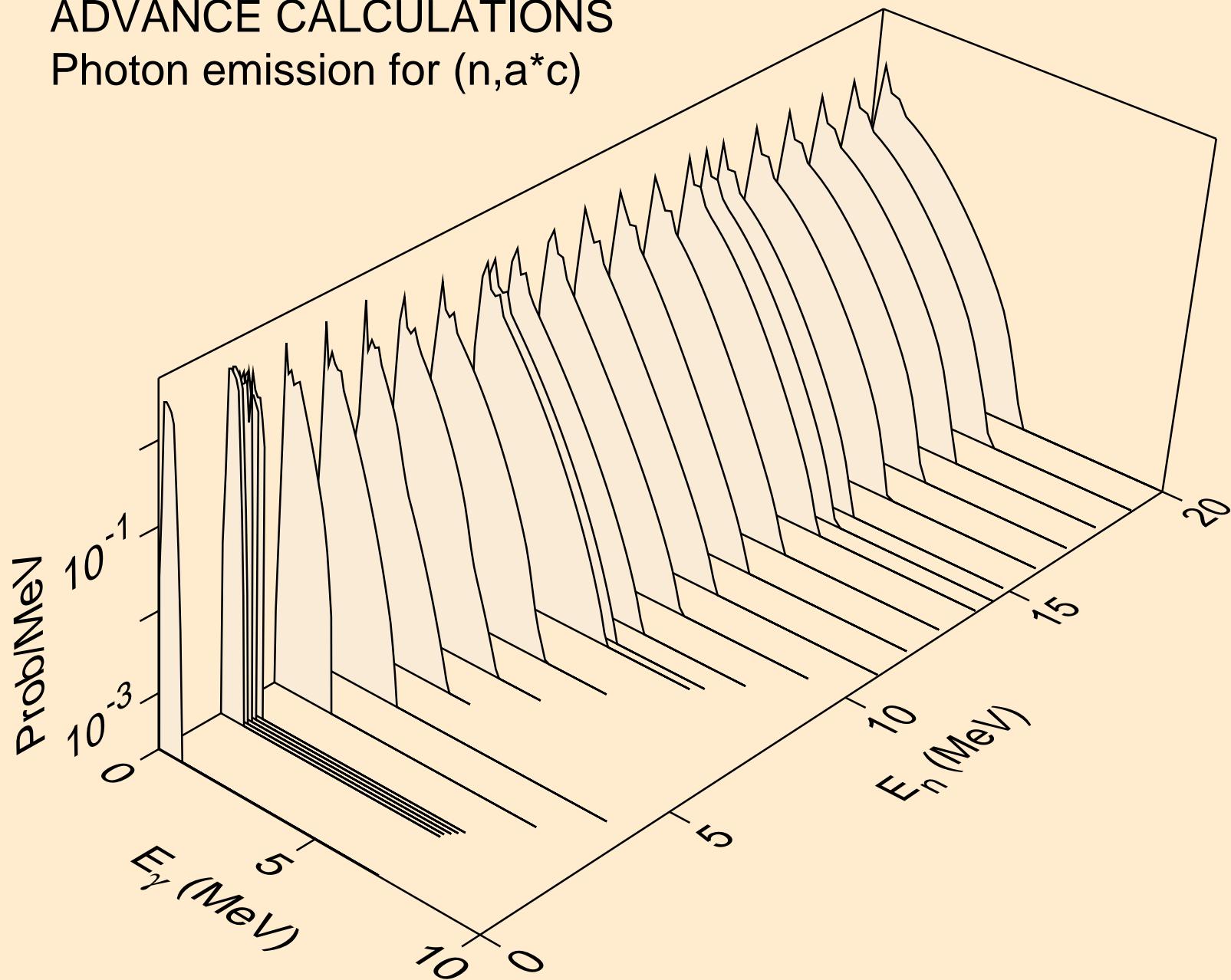
# ADVANCE CALCULATIONS

## Photon emission for $(n, p^* c)$



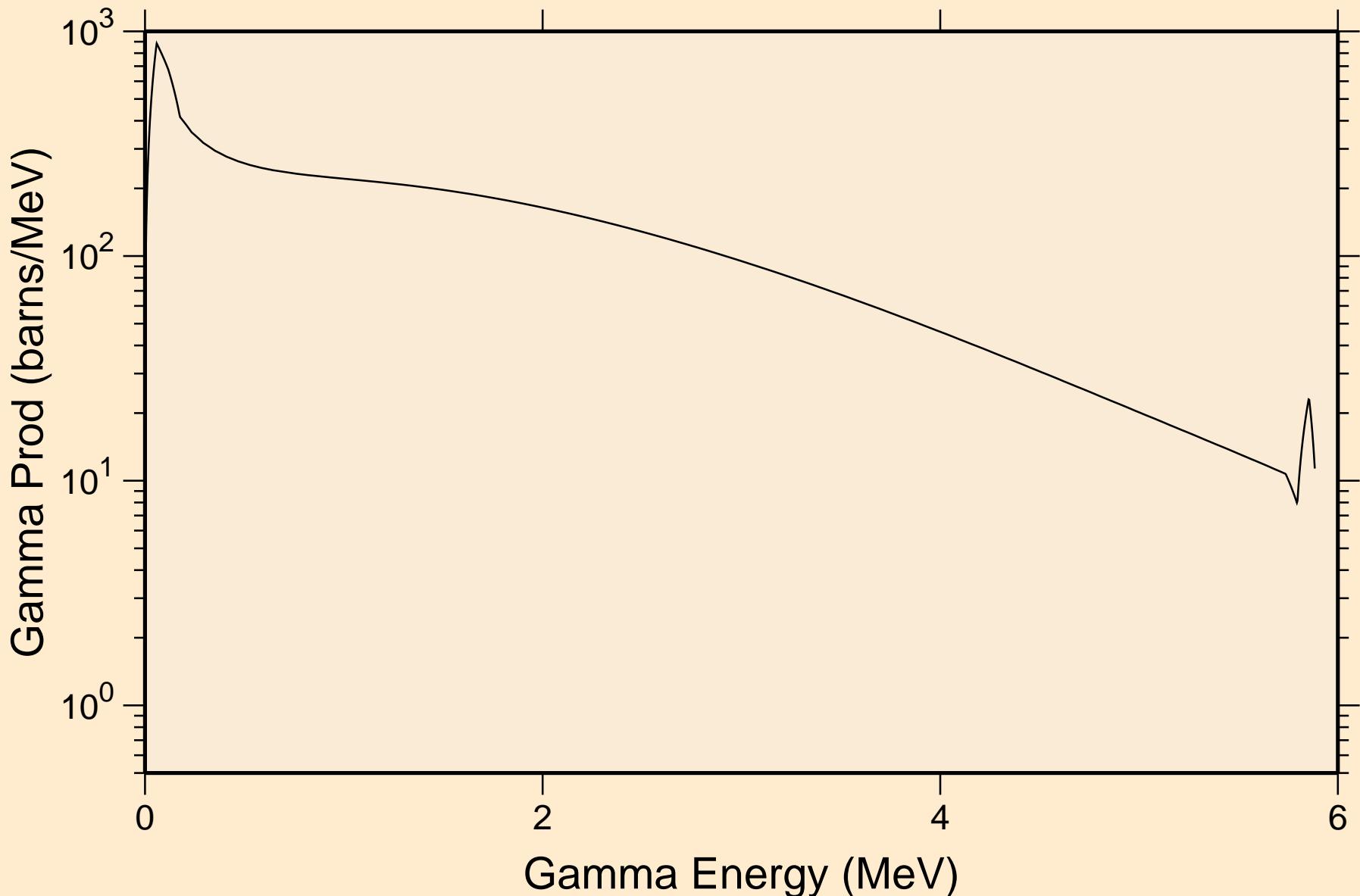
# ADVANCE CALCULATIONS

## Photon emission for $(n, a^*c)$

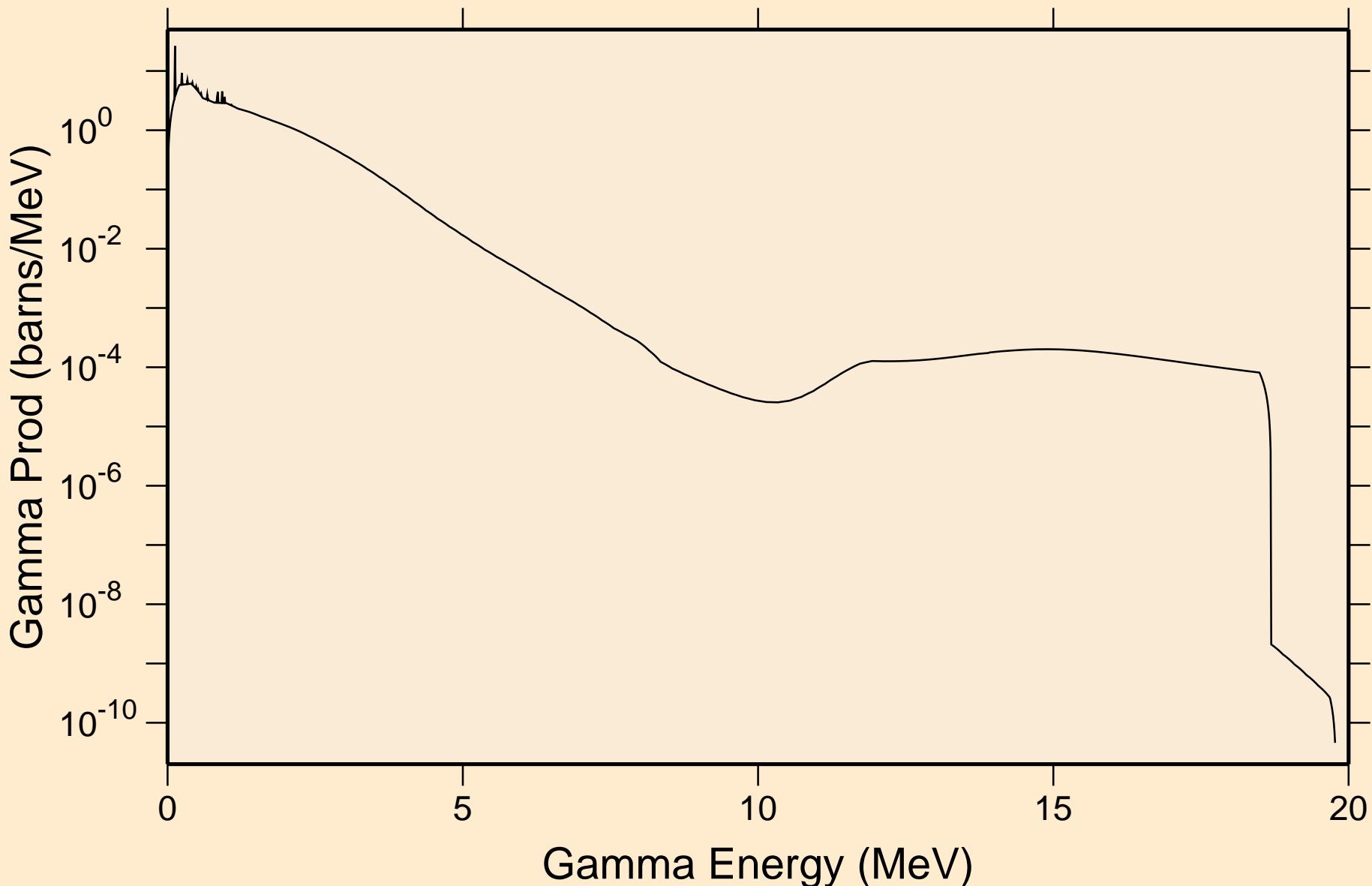


# ADVANCE CALCULATIONS

## thermal capture photon spectrum

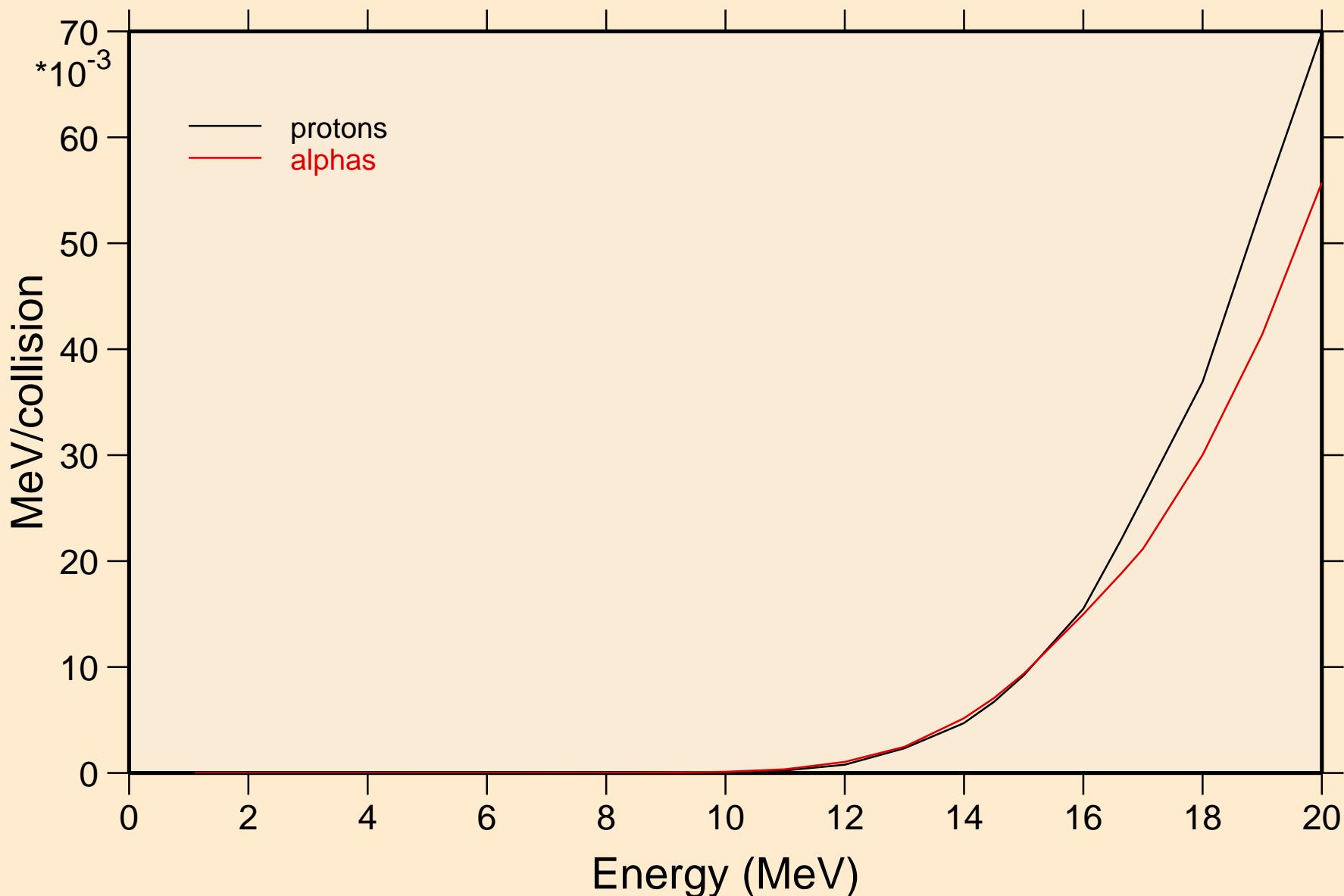


ADVANCE CALCULATIONS  
14 MeV photon spectrum



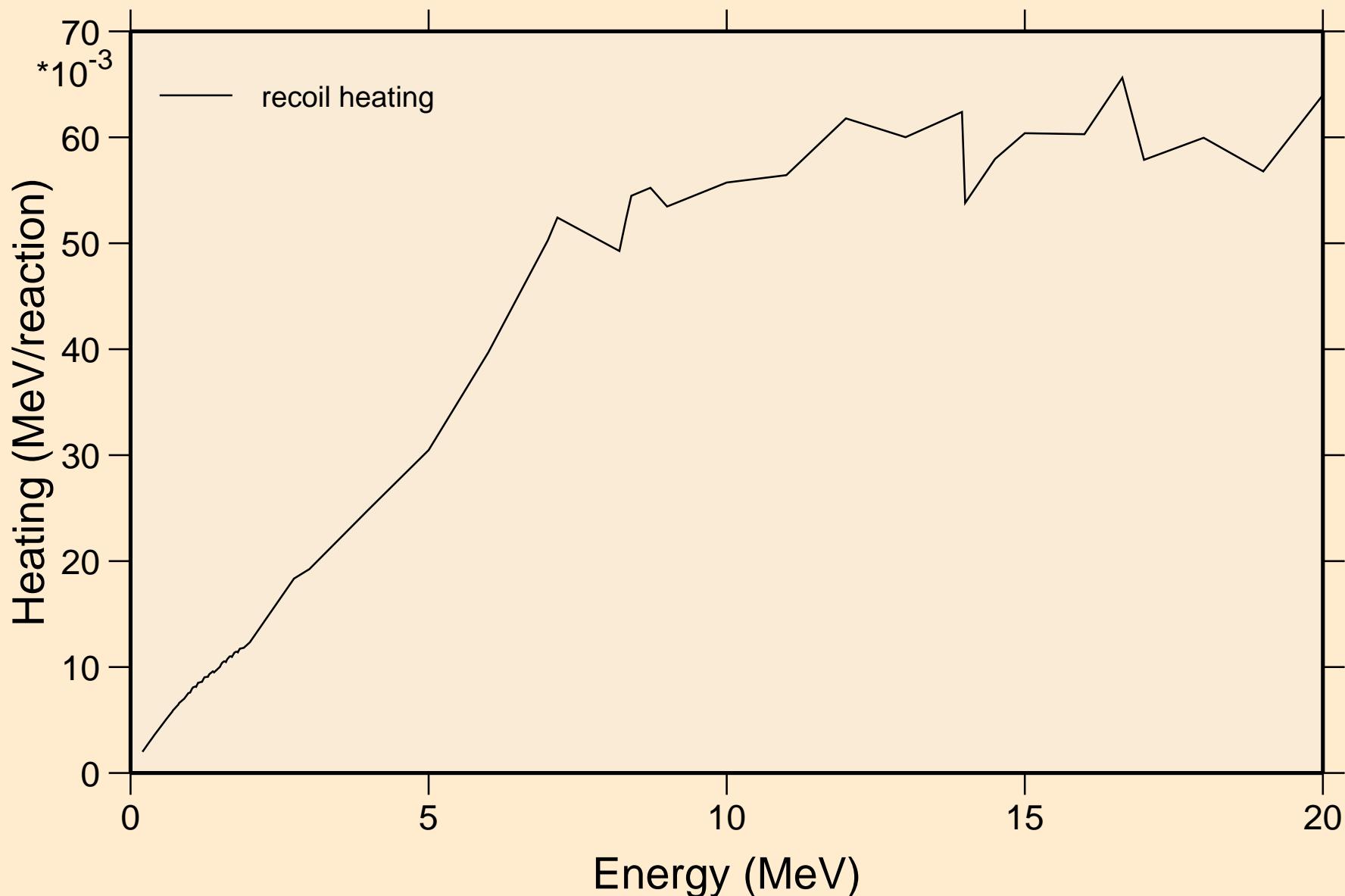
# ADVANCE CALCULATIONS

## Particle heating contributions



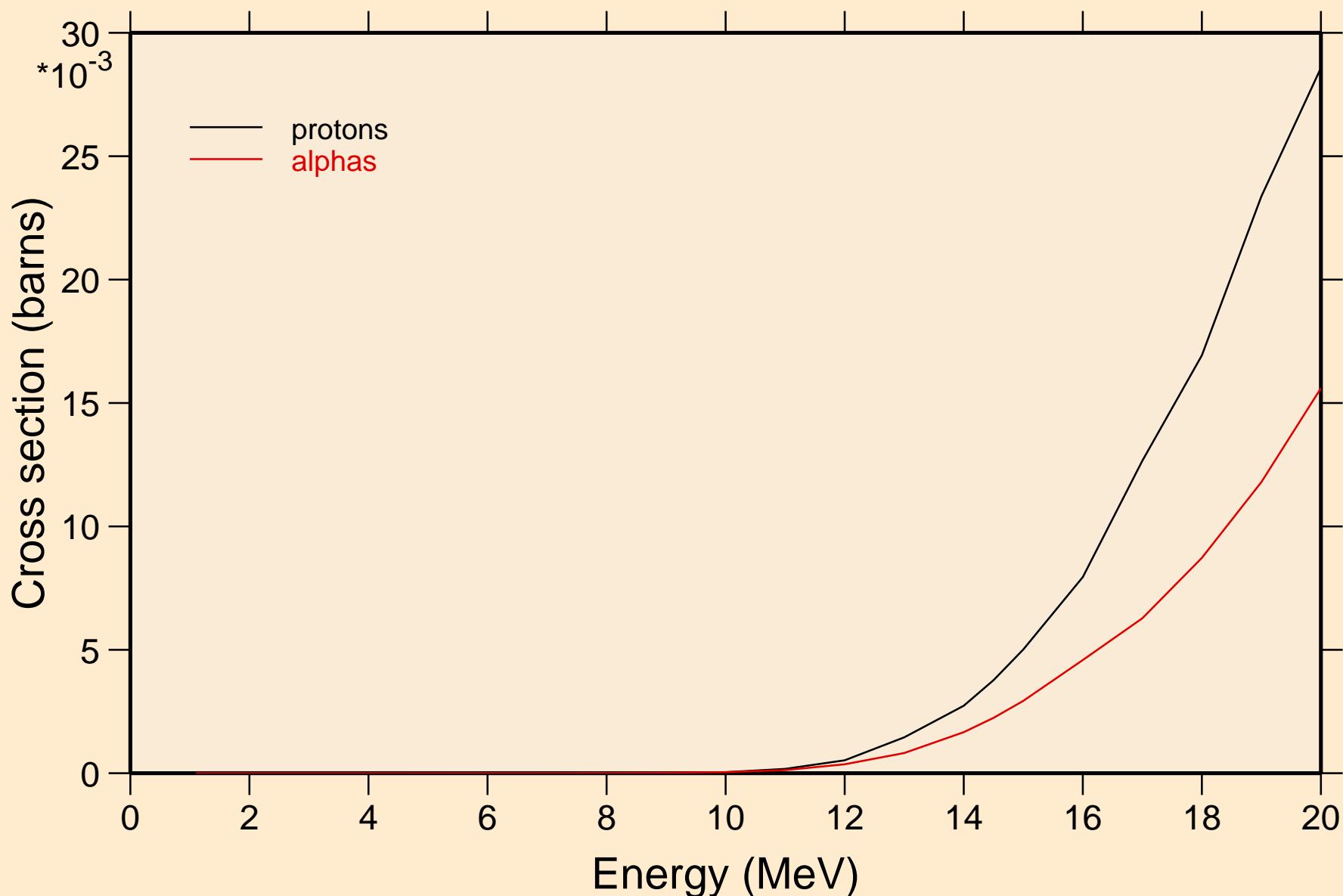
# ADVANCE CALCULATIONS

## Recoil Heating



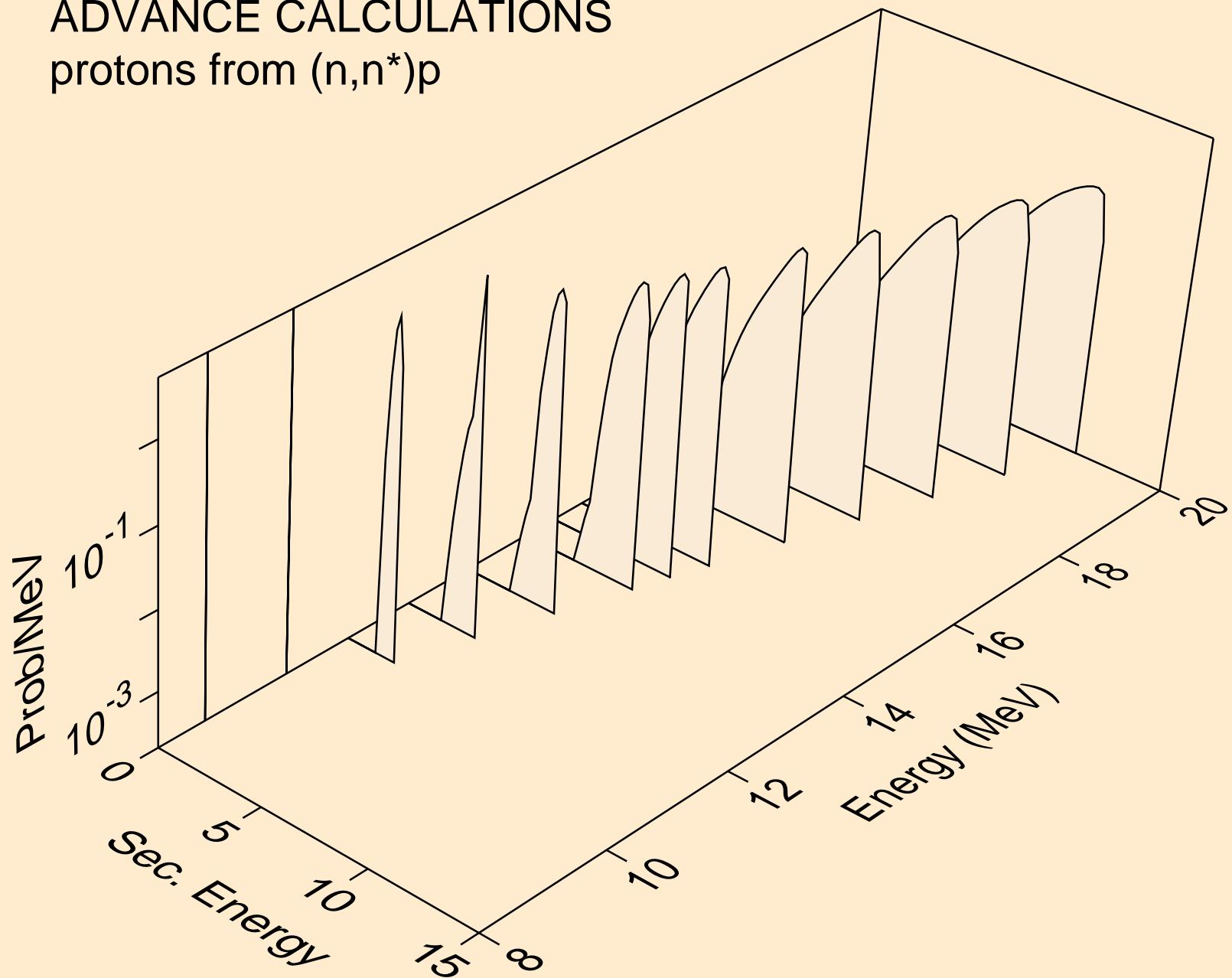
# ADVANCE CALCULATIONS

## Particle production cross sections



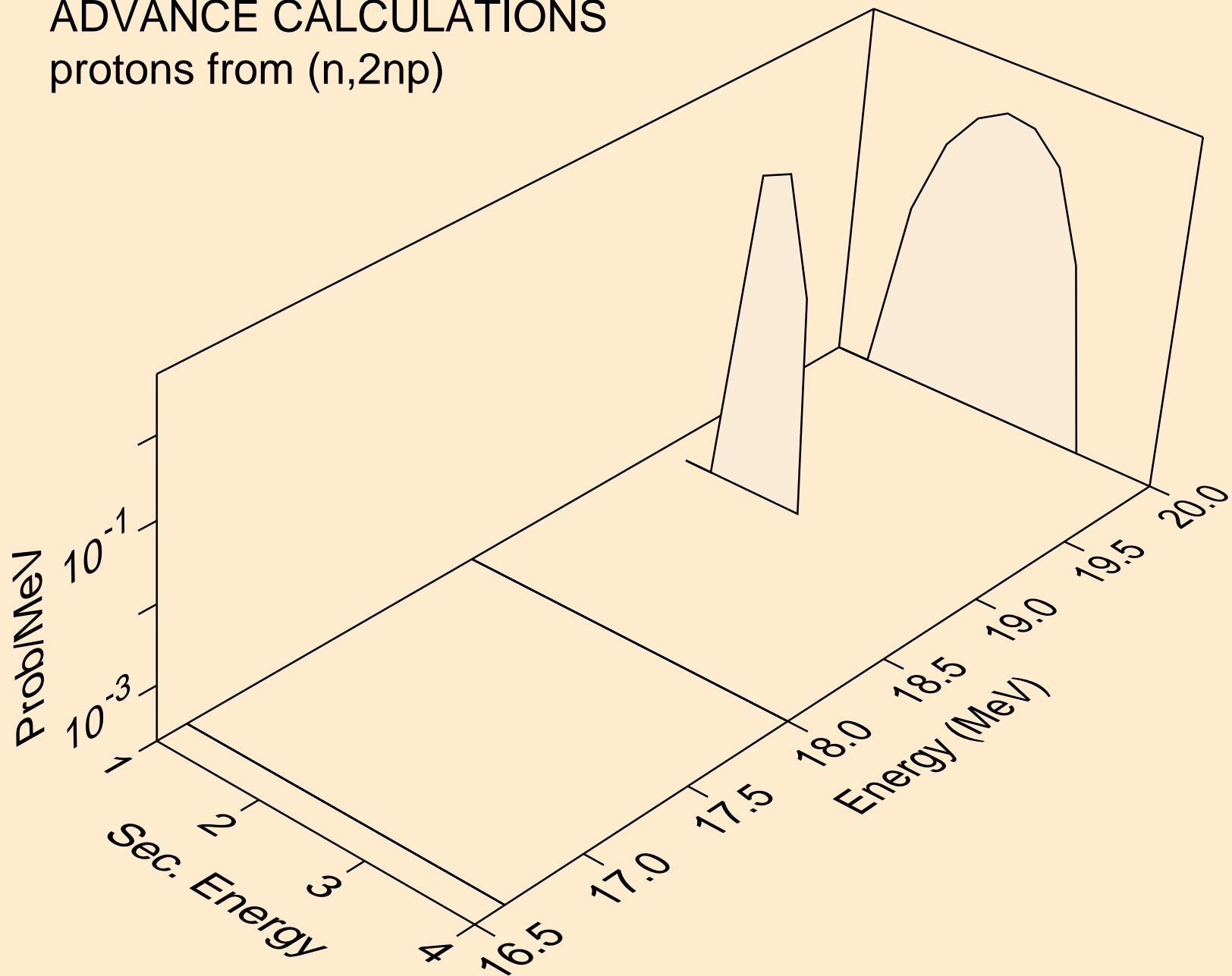
# ADVANCE CALCULATIONS

protons from  $(n,n^*)p$



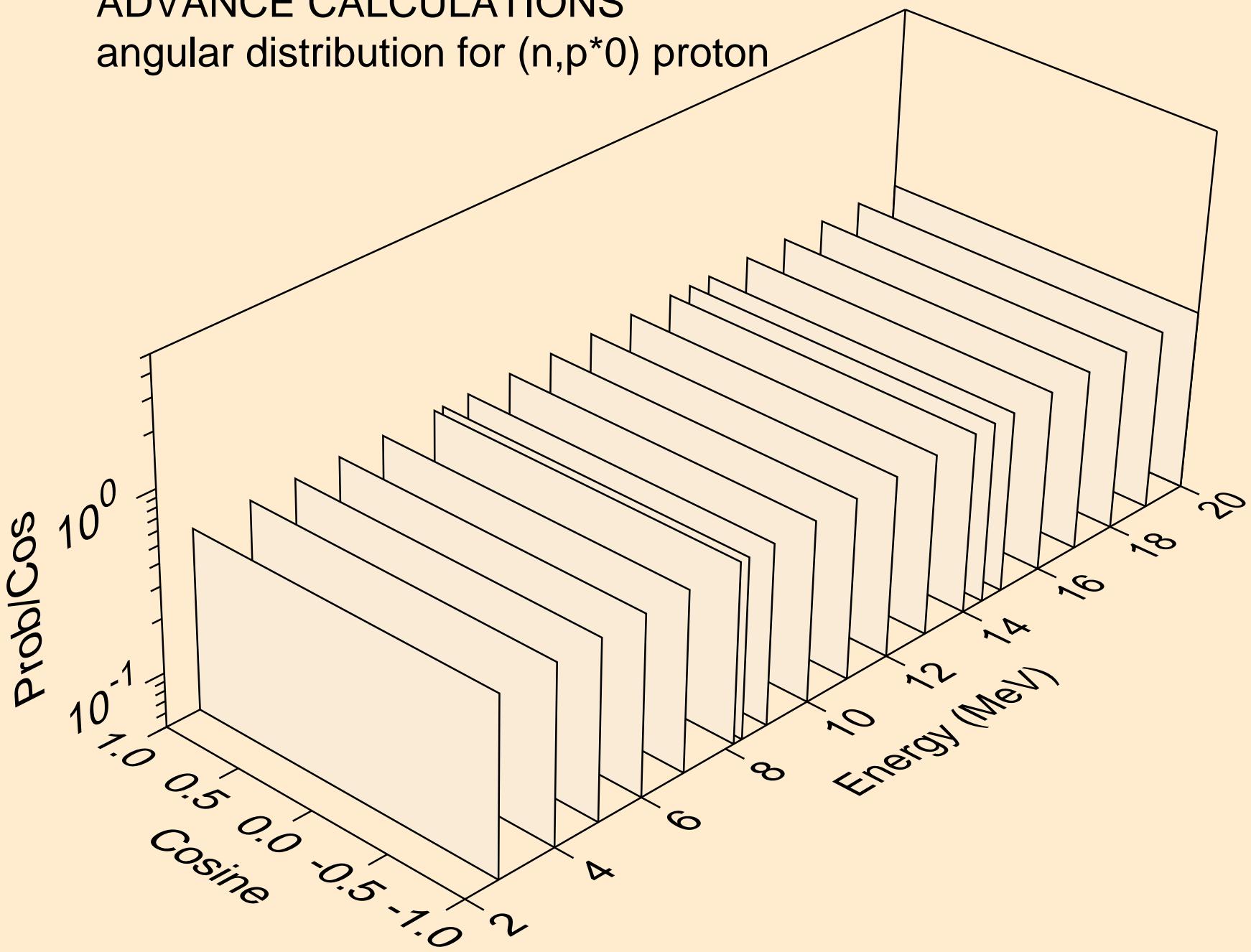
# ADVANCE CALCULATIONS

protons from (n,2np)



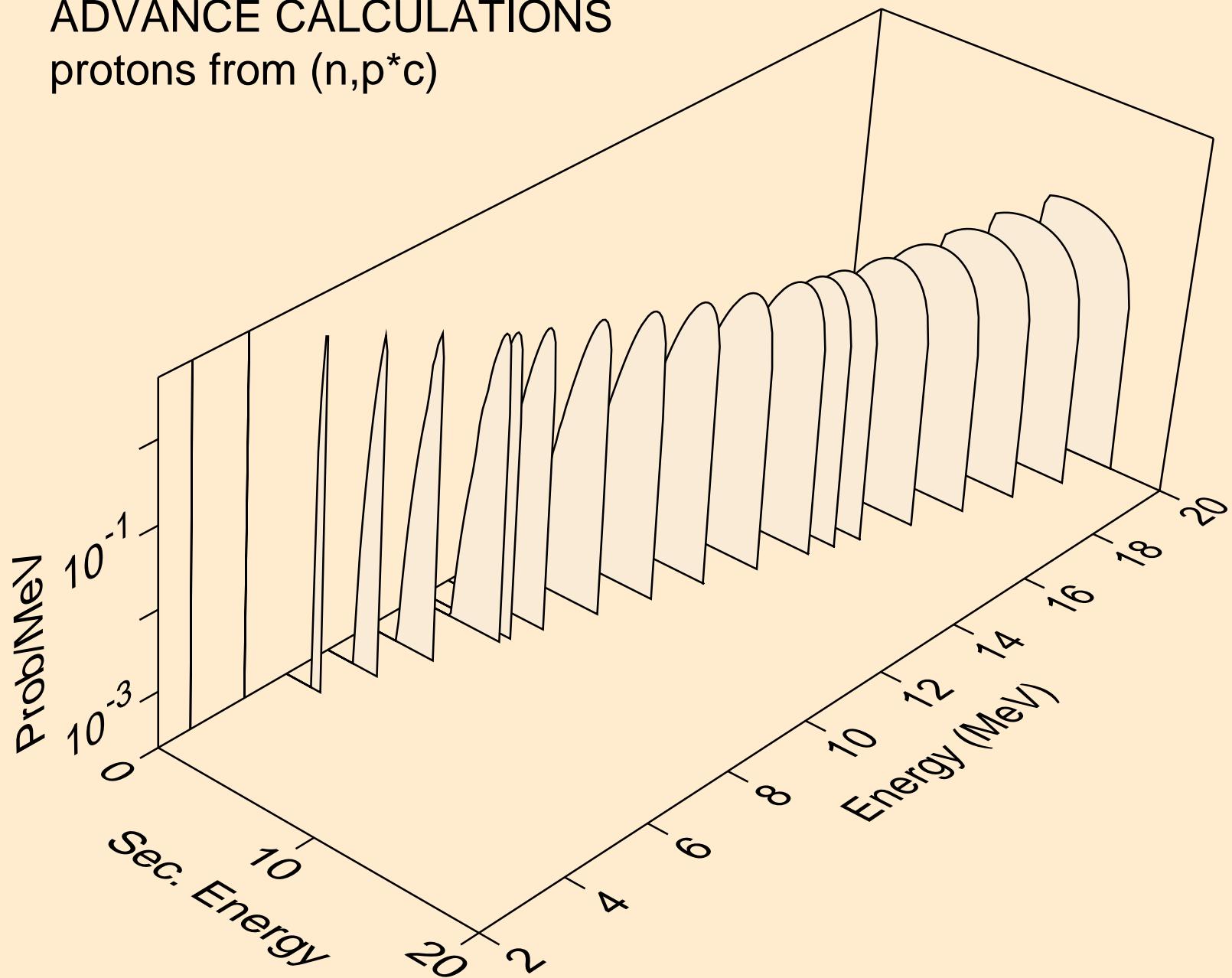
# ADVANCE CALCULATIONS

## angular distribution for ( $n,p^*0$ ) proton



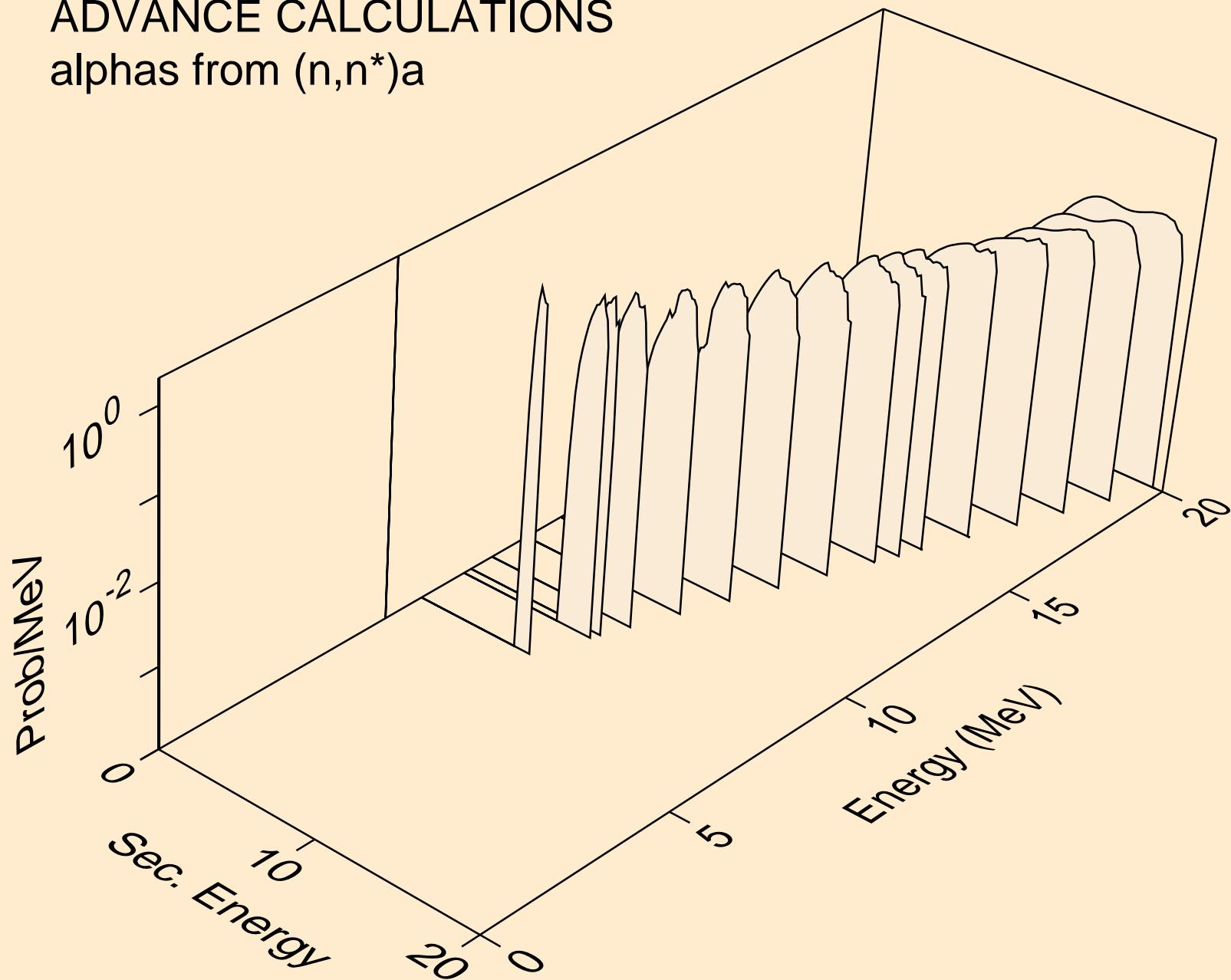
# ADVANCE CALCULATIONS

protons from  $(n, p^*c)$



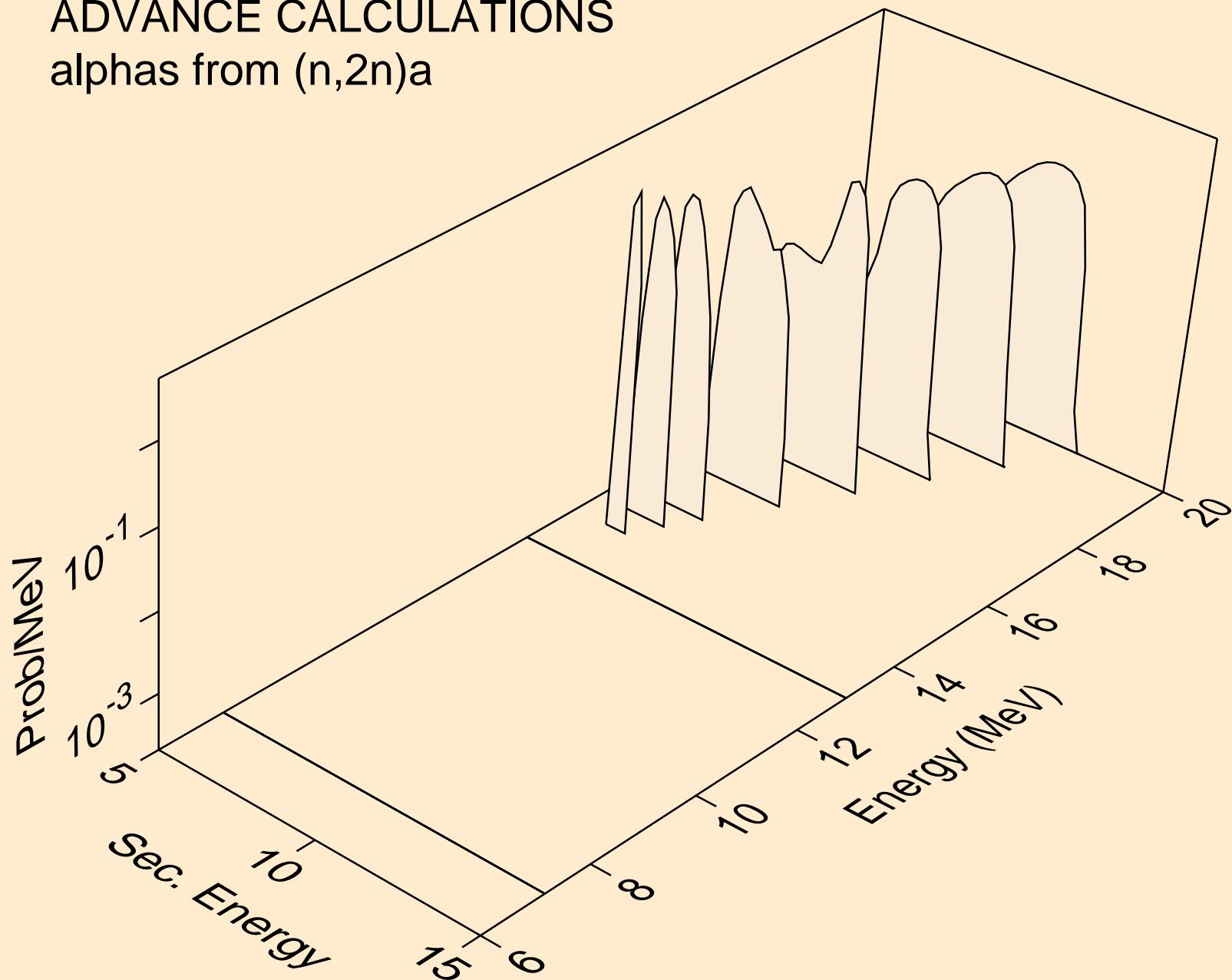
# ADVANCE CALCULATIONS

## alphas from $(n,n^*)a$



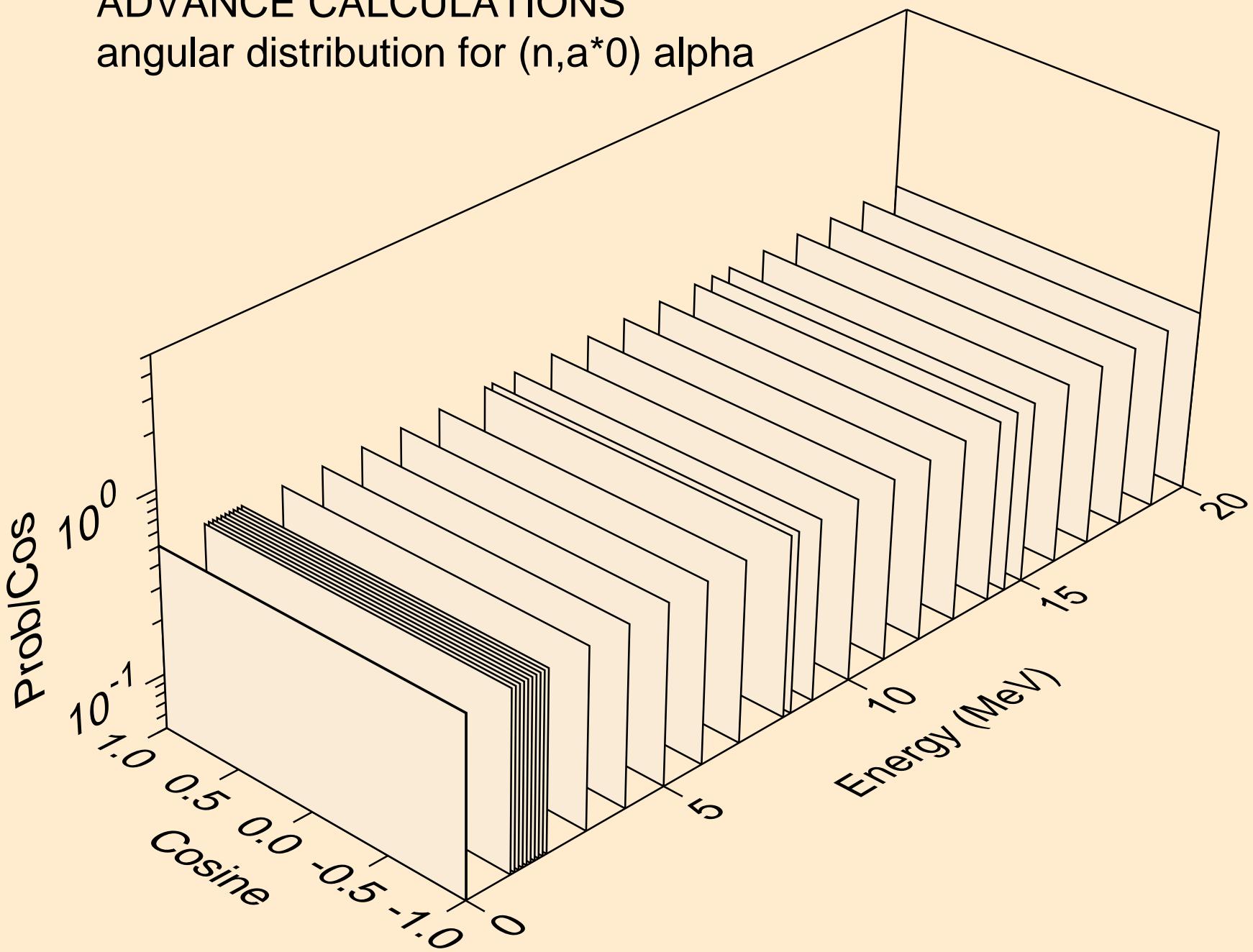
# ADVANCE CALCULATIONS

alphas from  $(n,2n)a$



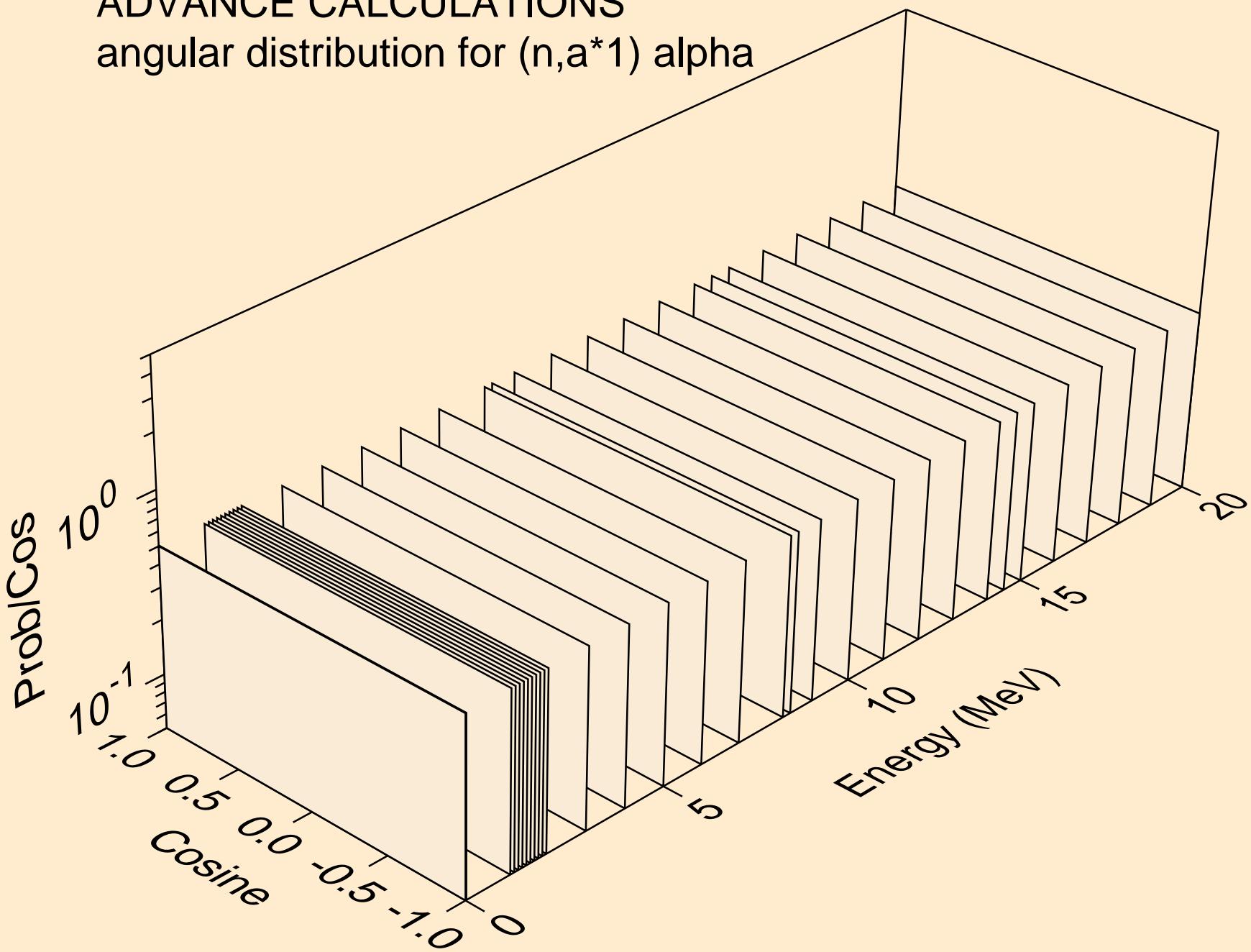
# ADVANCE CALCULATIONS

## angular distribution for $(n,a^*0)$ alpha



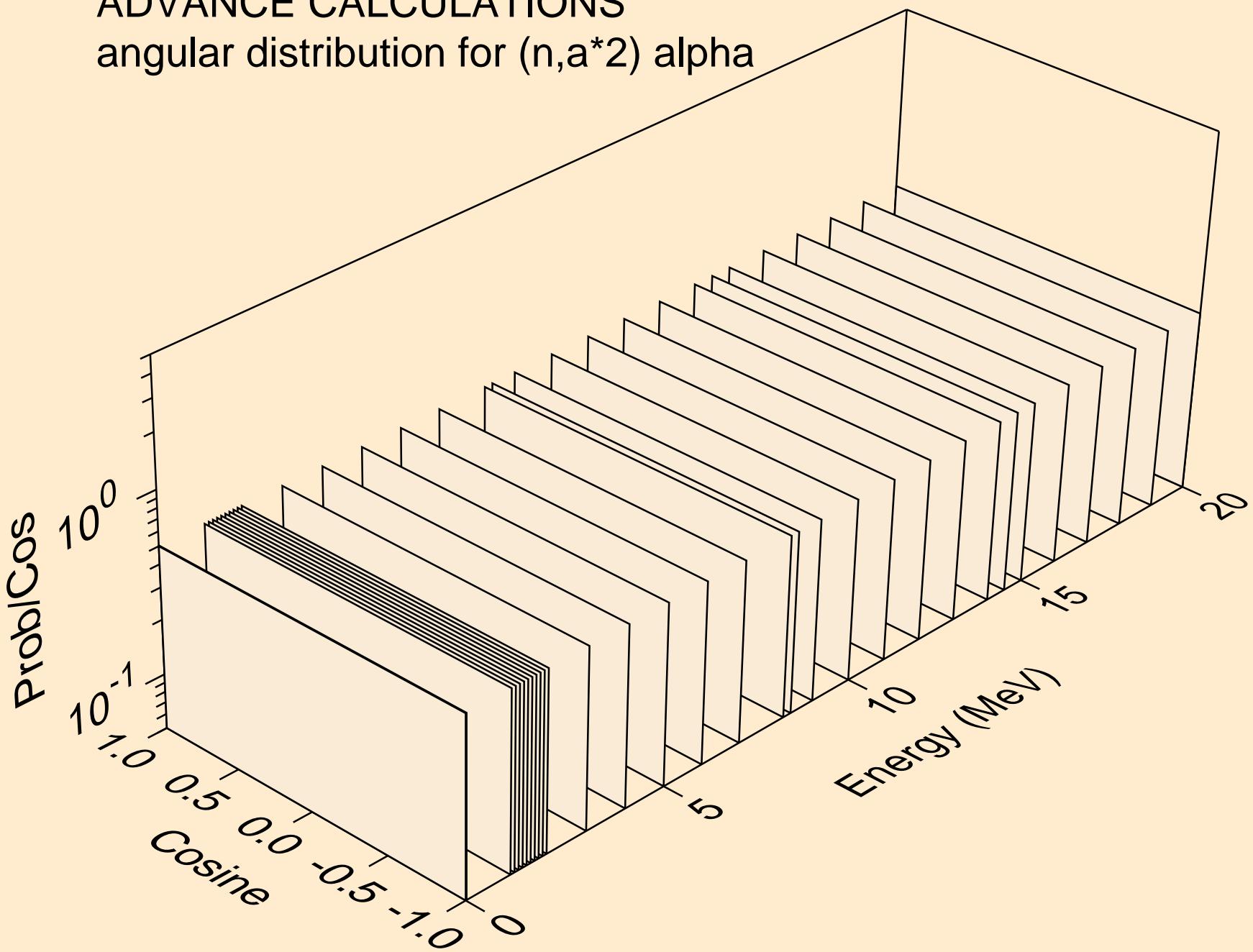
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*1) alpha



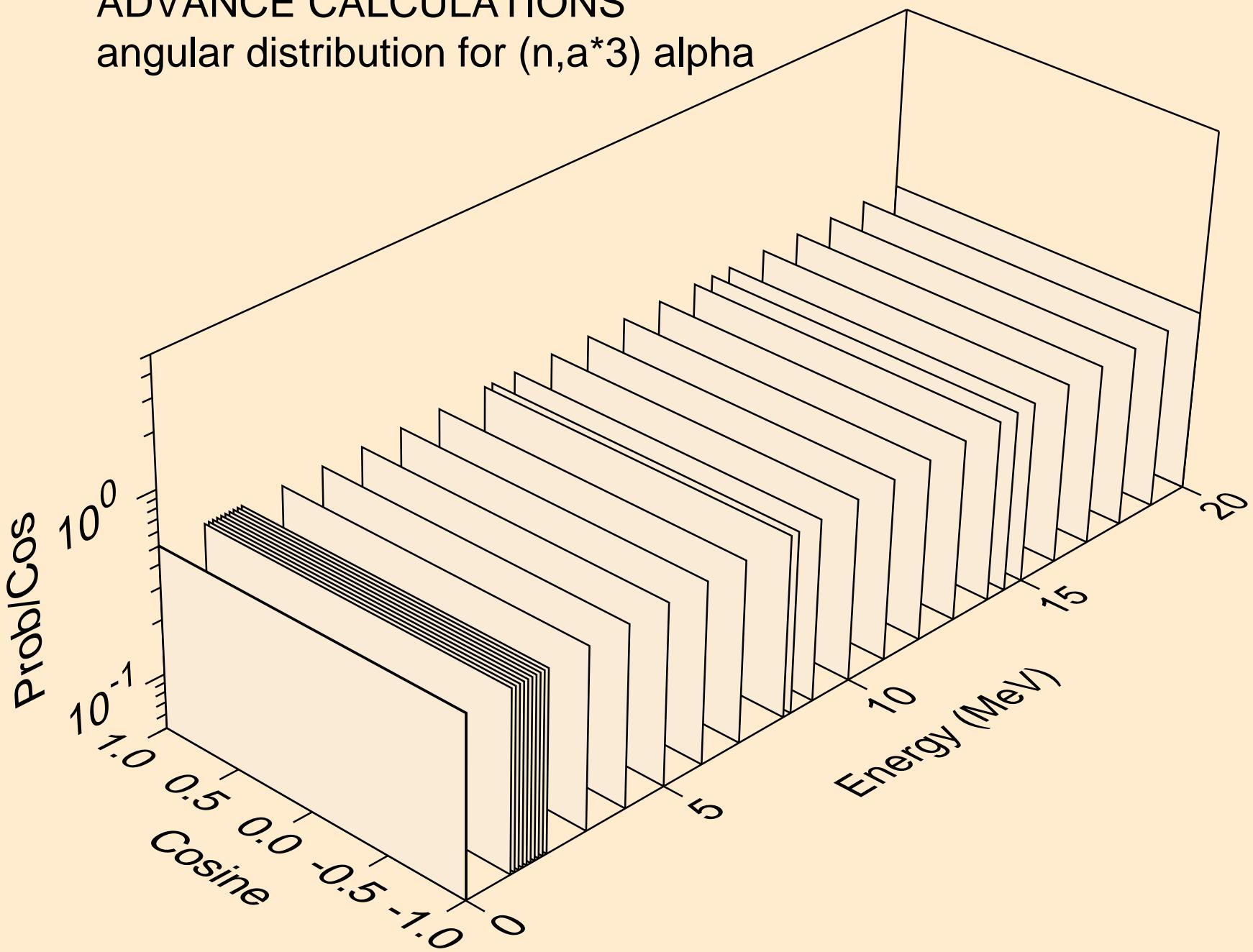
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*2)$  alpha



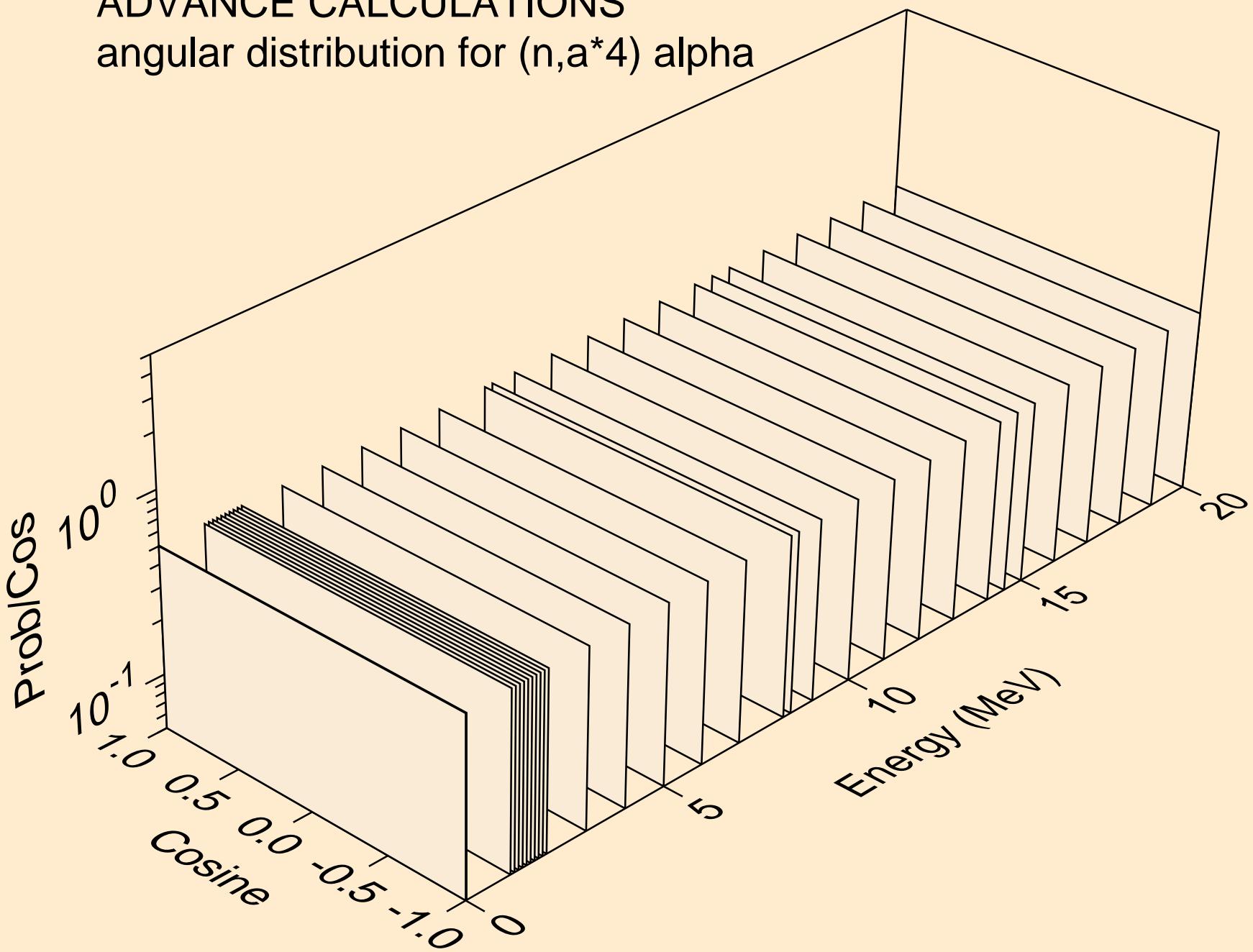
# ADVANCE CALCULATIONS

## angular distribution for $(n,a^*3)$ alpha



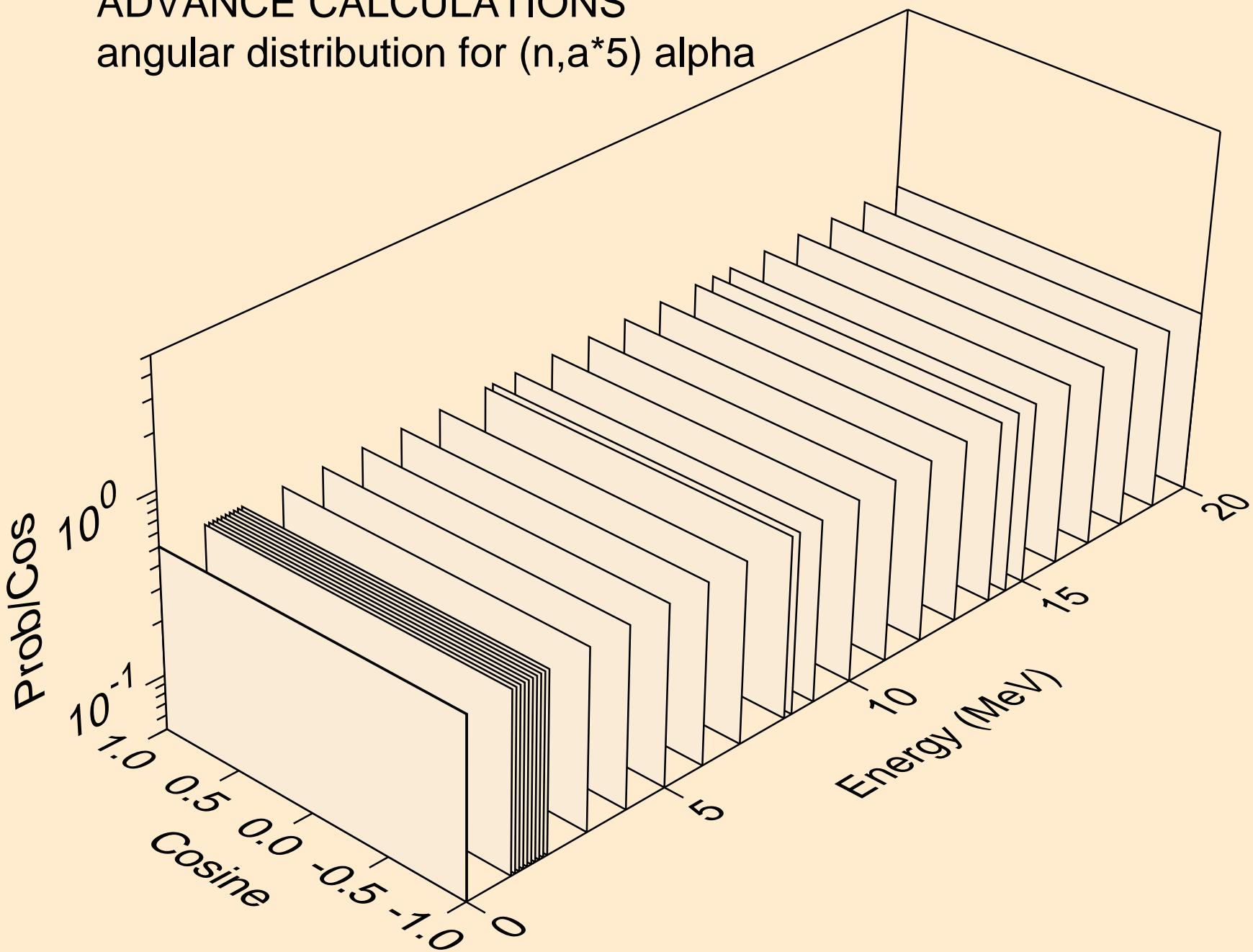
# ADVANCE CALCULATIONS

## angular distribution for $(n,a^*4)$ alpha



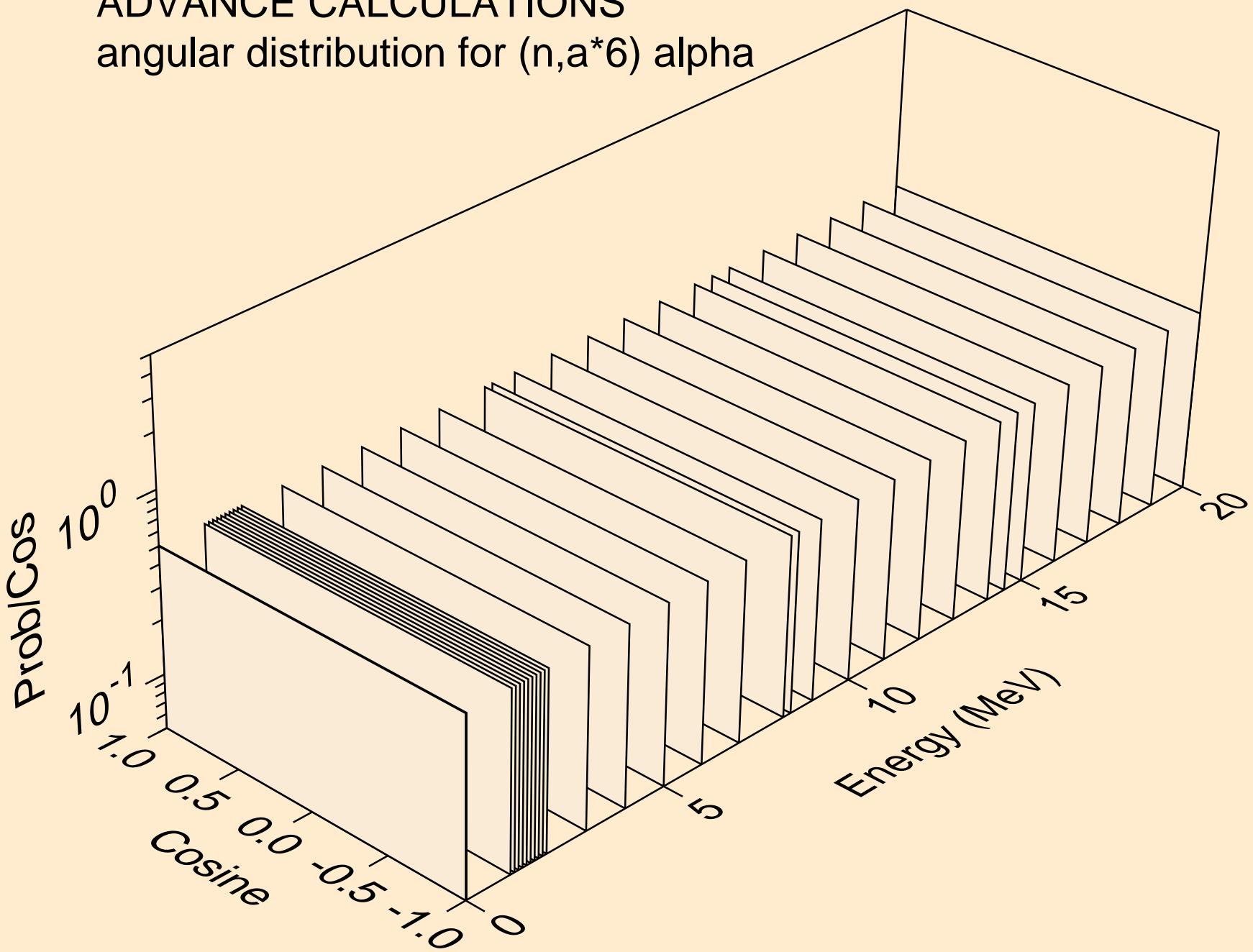
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*5) alpha



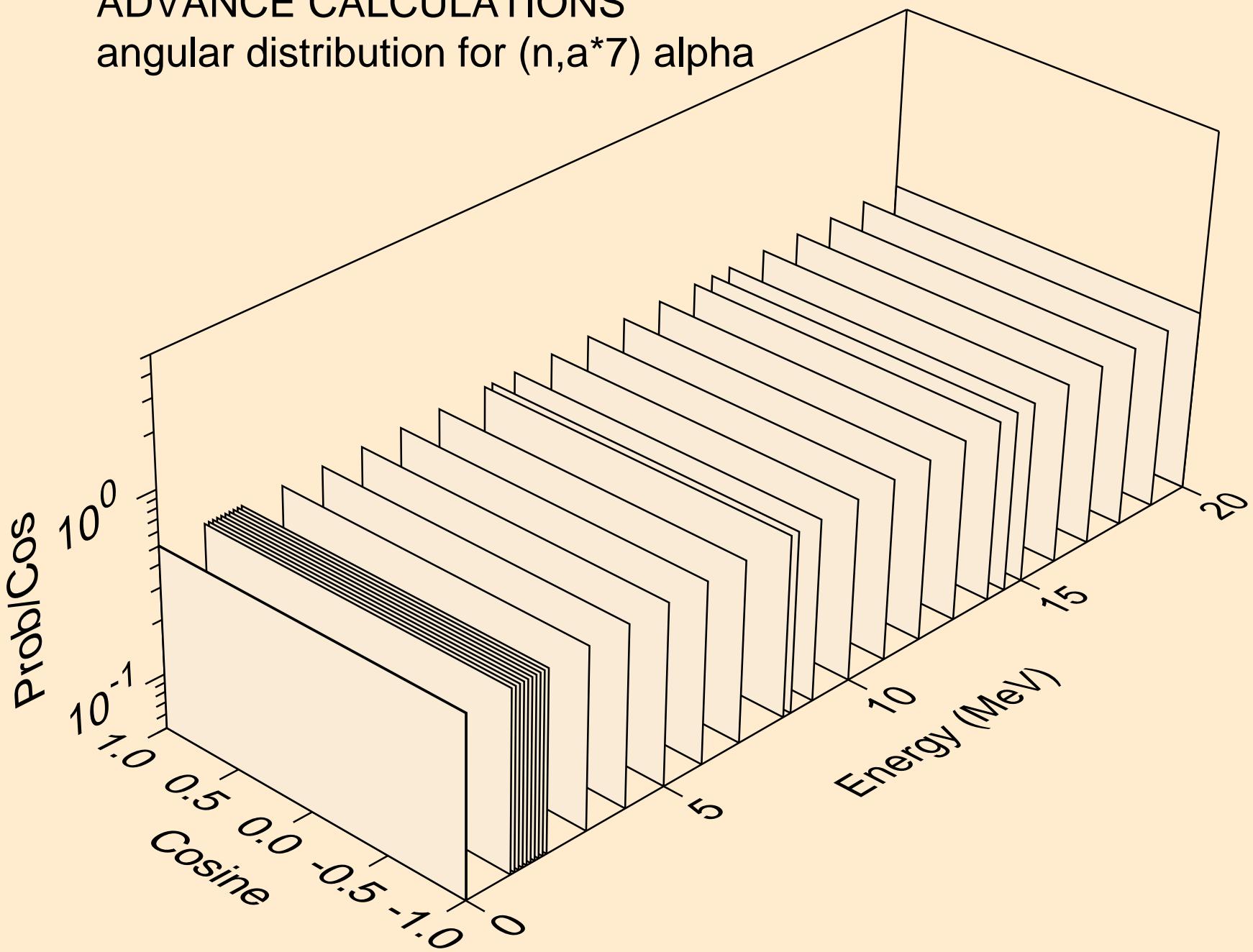
# ADVANCE CALCULATIONS

## angular distribution for $(n,a^*6)$ alpha



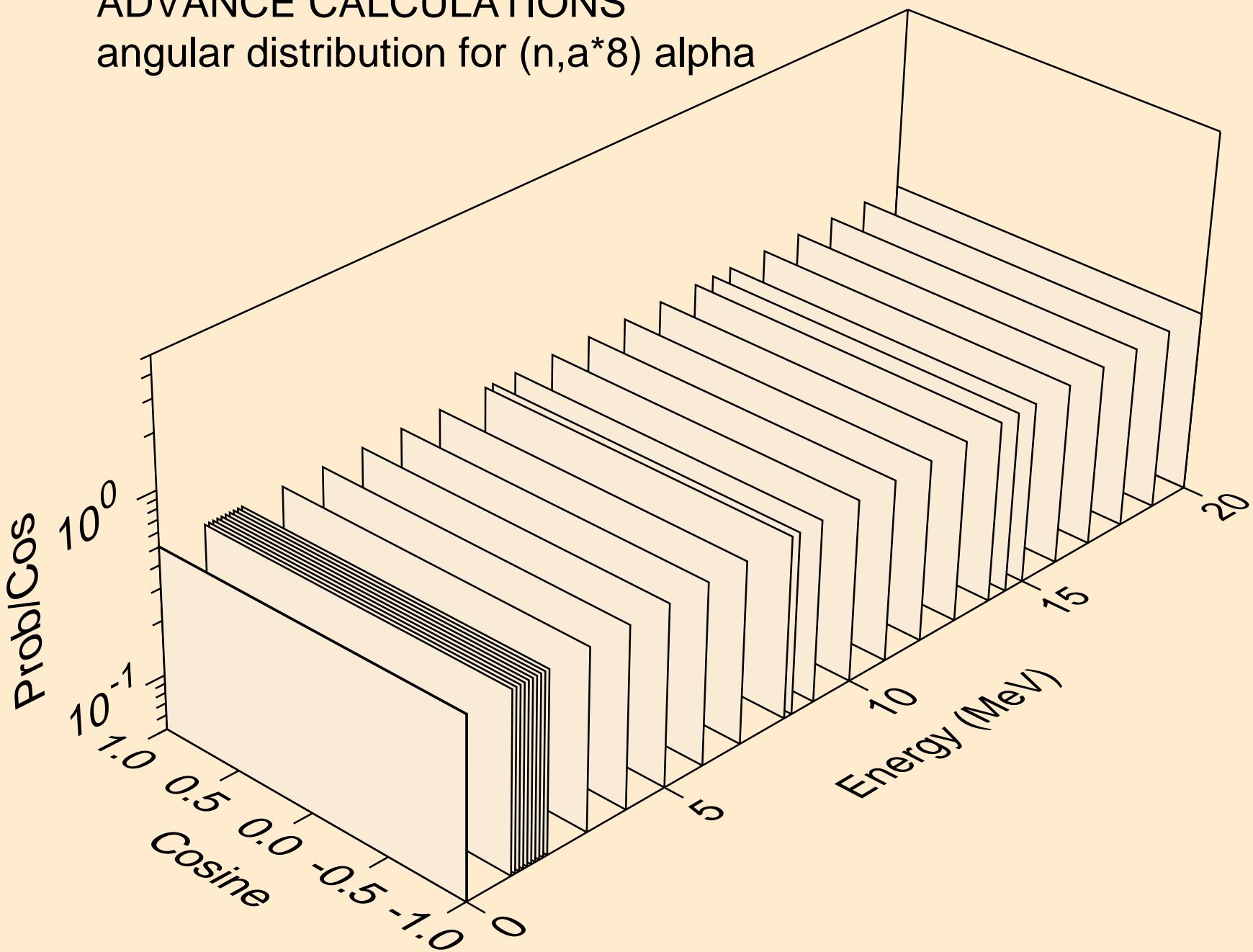
# ADVANCE CALCULATIONS

## angular distribution for $(n,a^*7)$ alpha



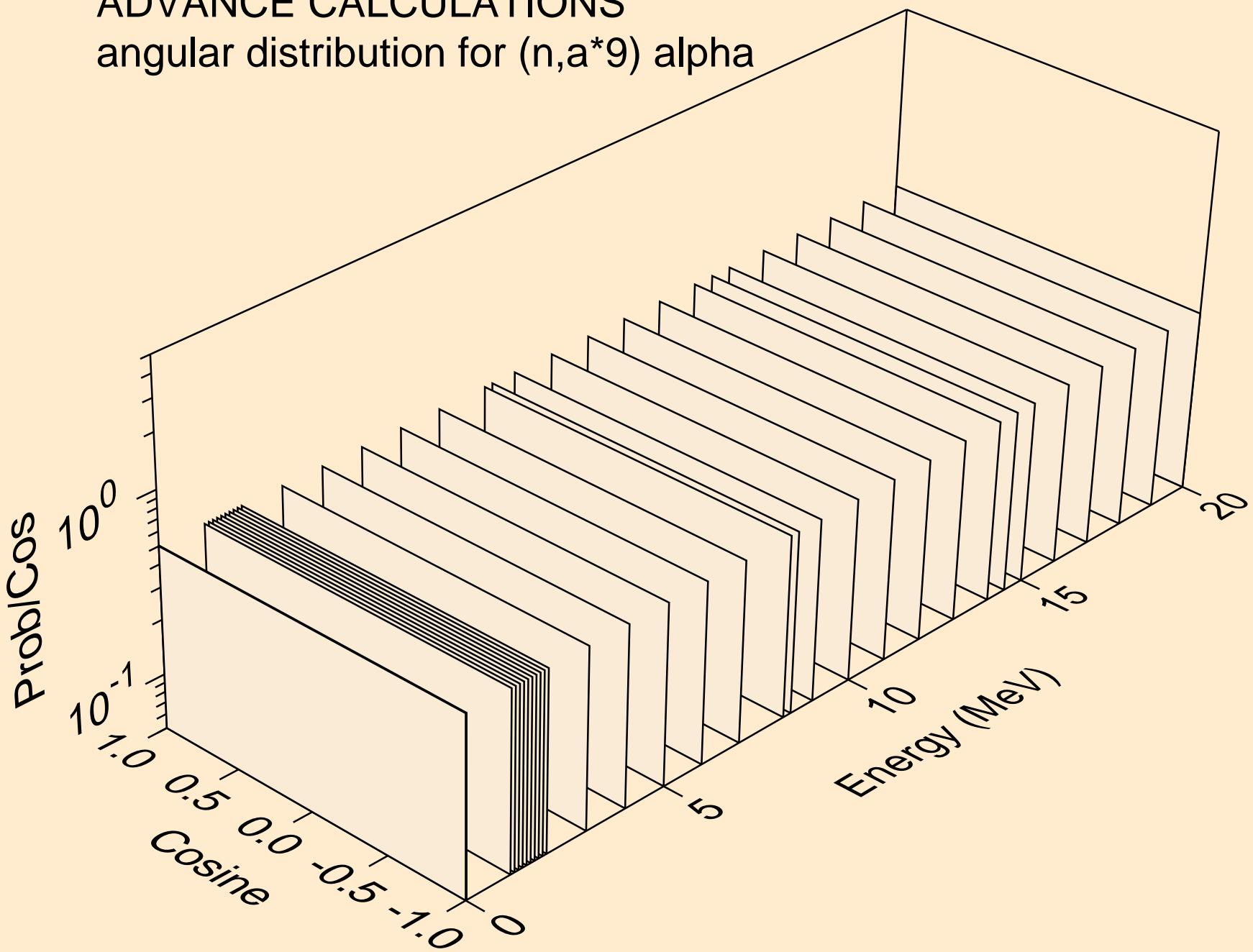
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*8) alpha



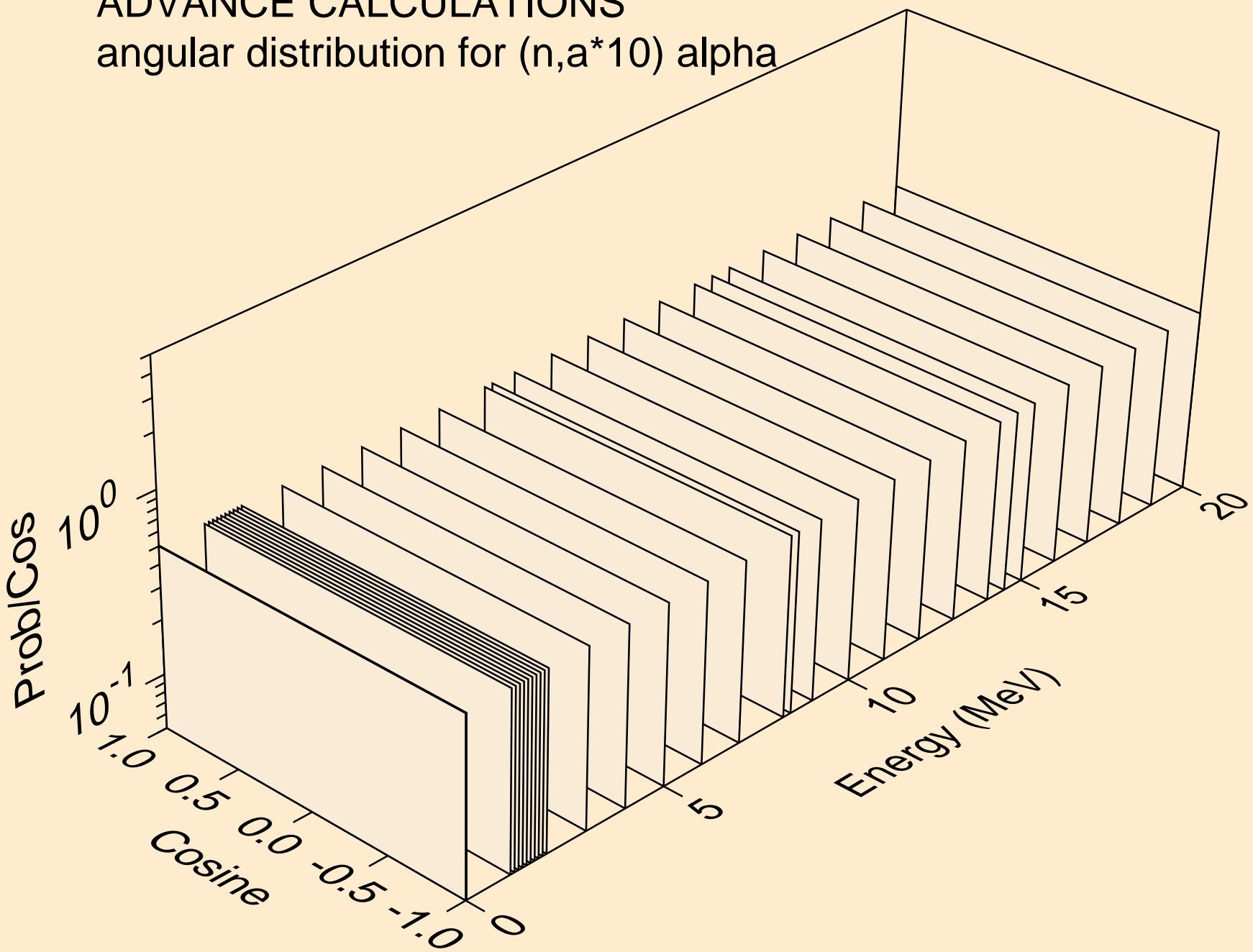
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*9) alpha



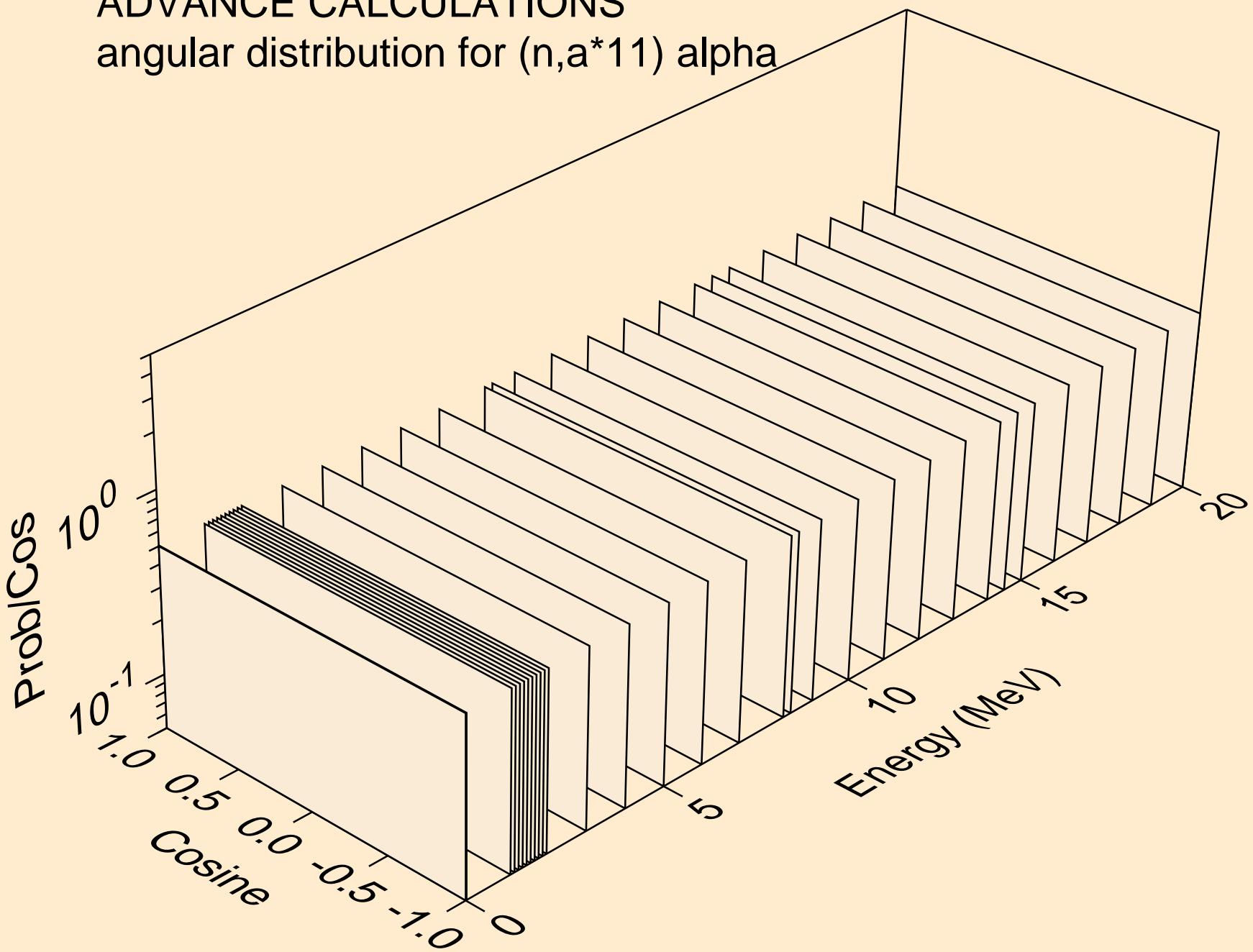
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*10) alpha



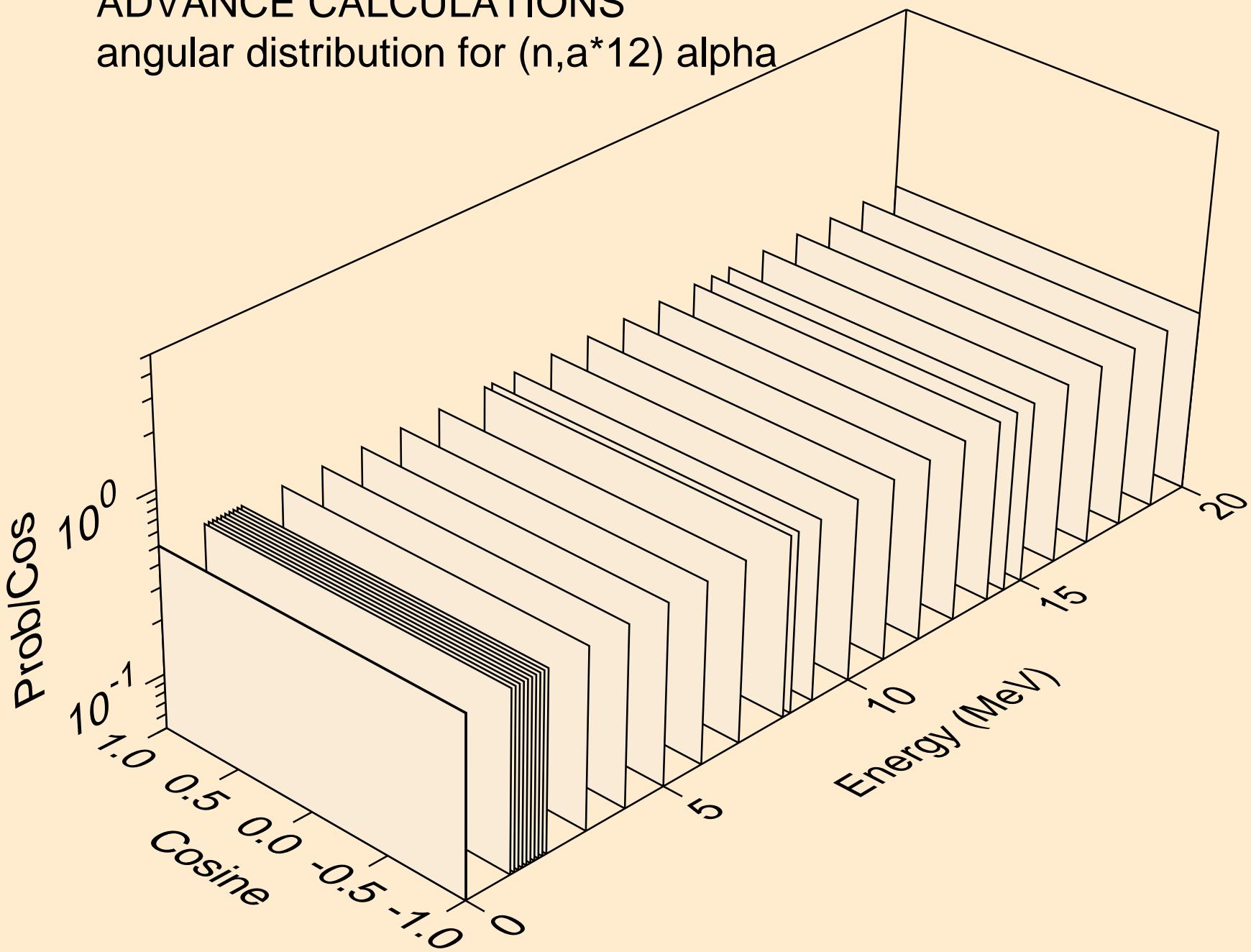
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*11) alpha



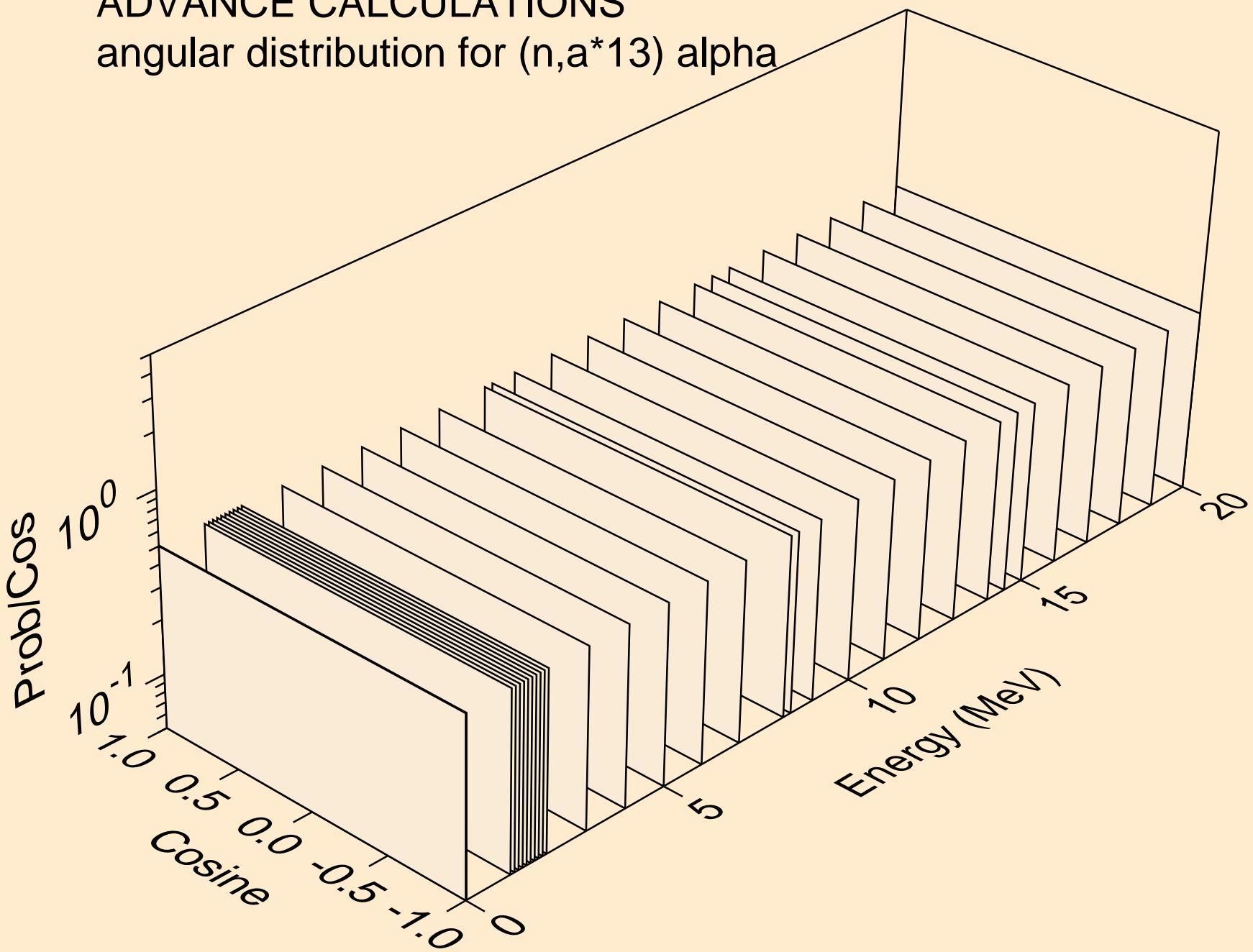
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*12) alpha



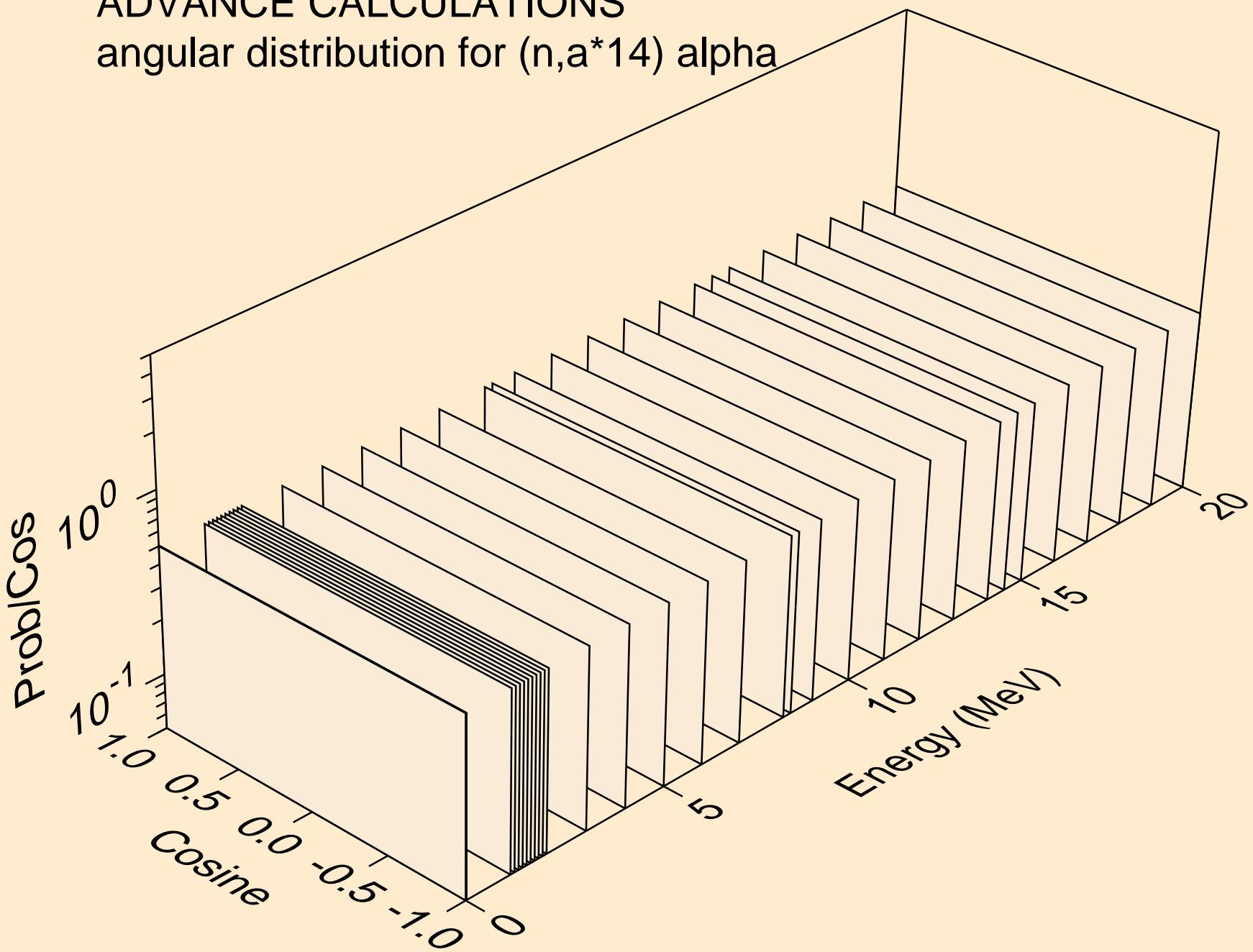
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*13) alpha



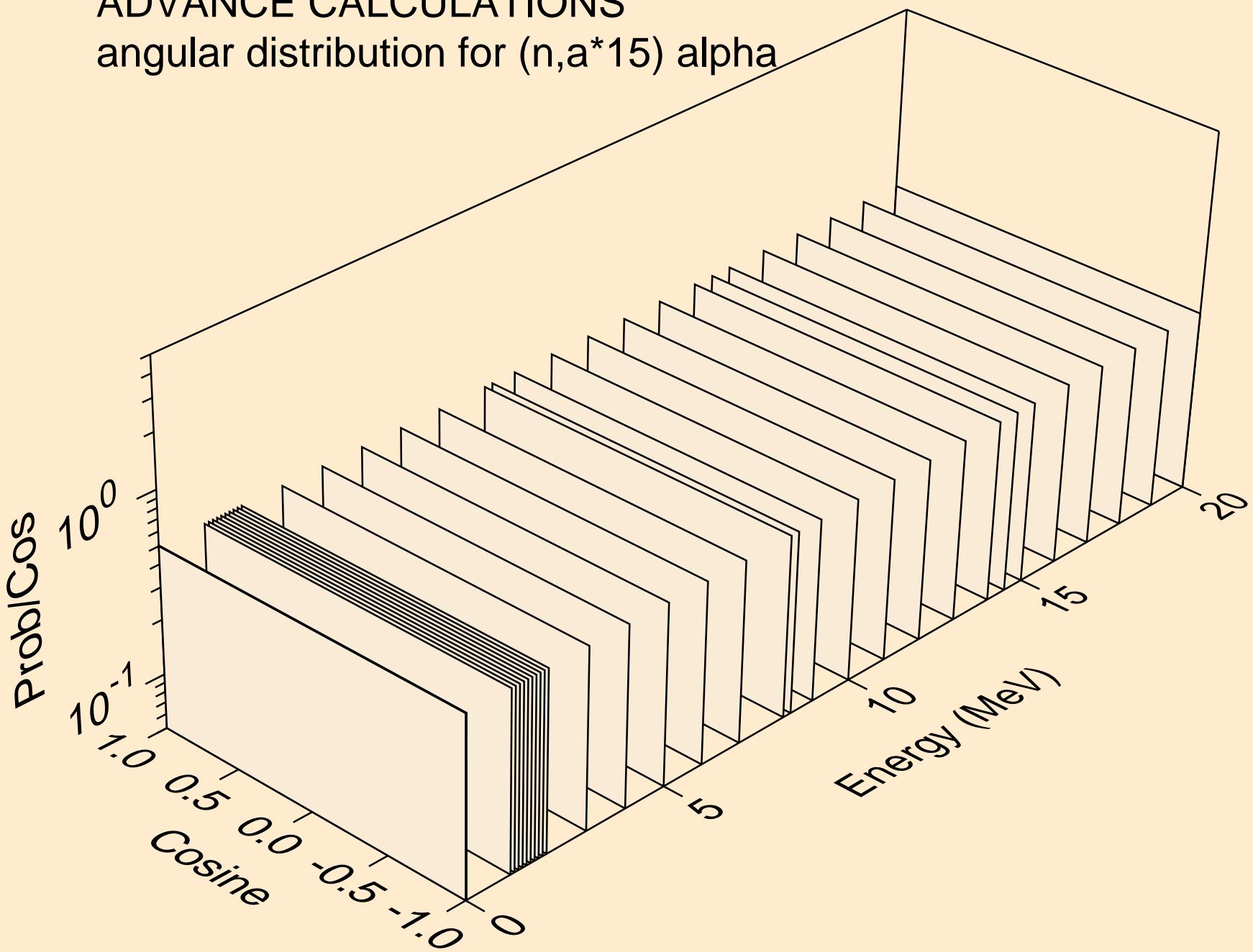
# ADVANCE CALCULATIONS

## angular distribution for ( $n,a^*14$ ) alpha



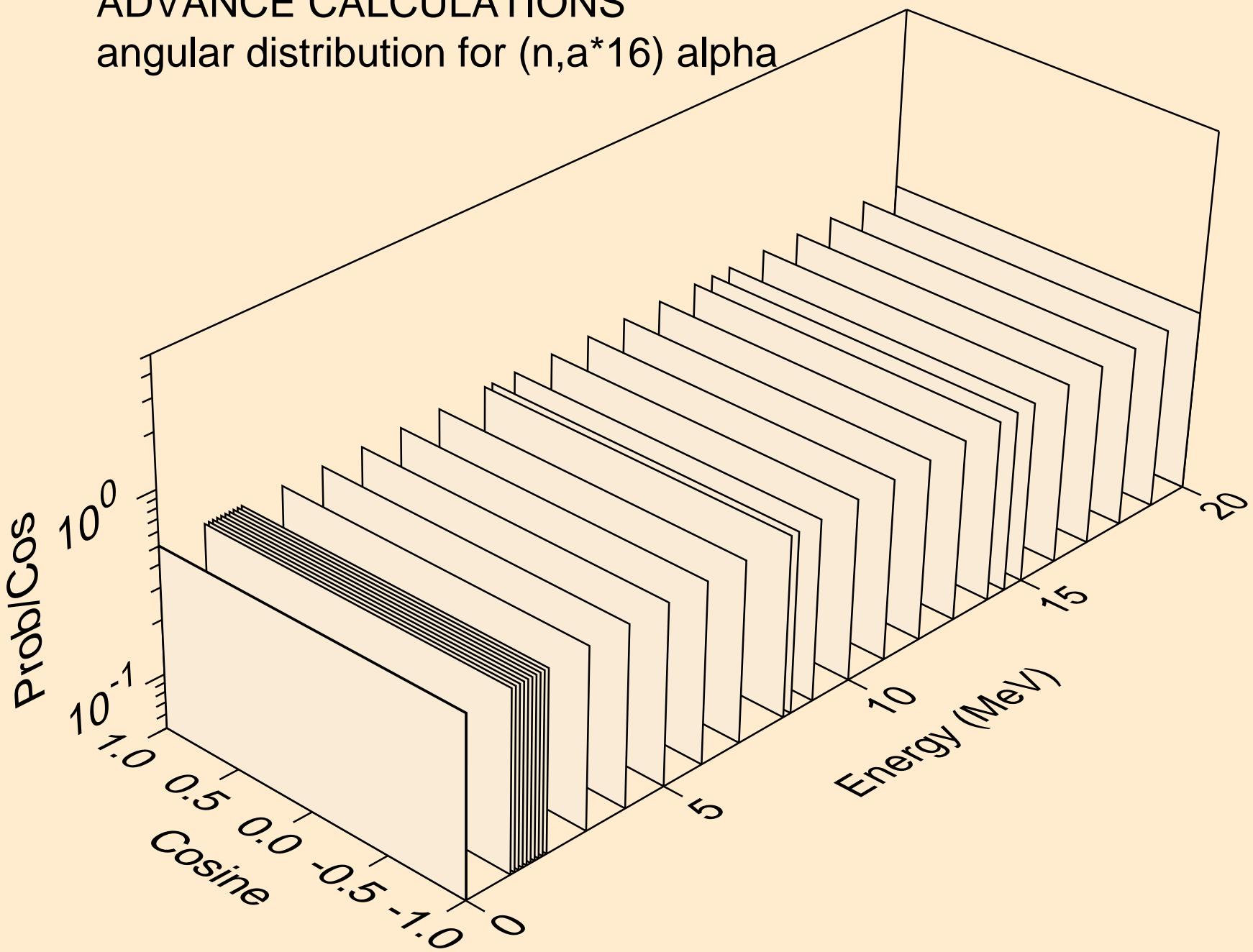
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*15) alpha



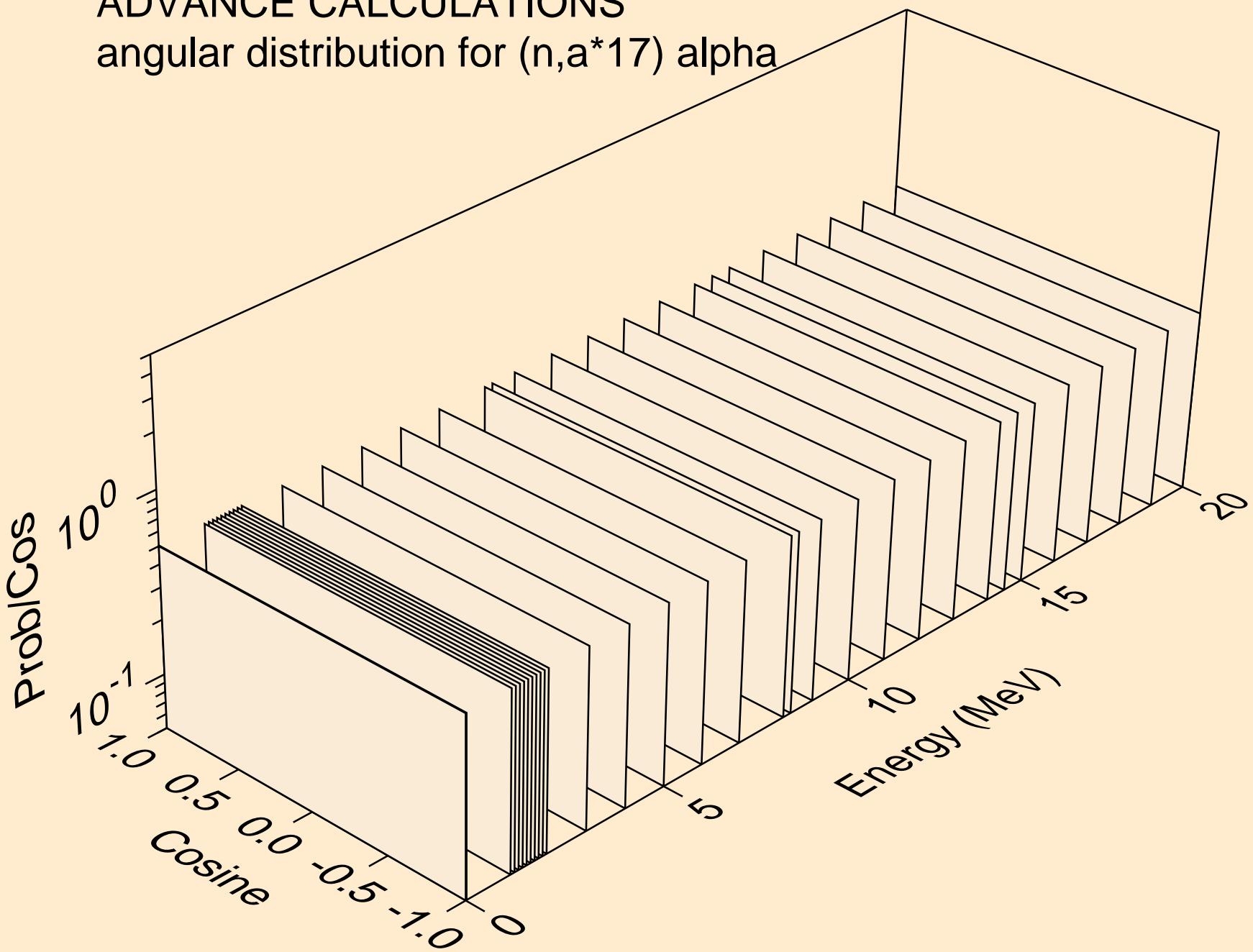
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*16) alpha



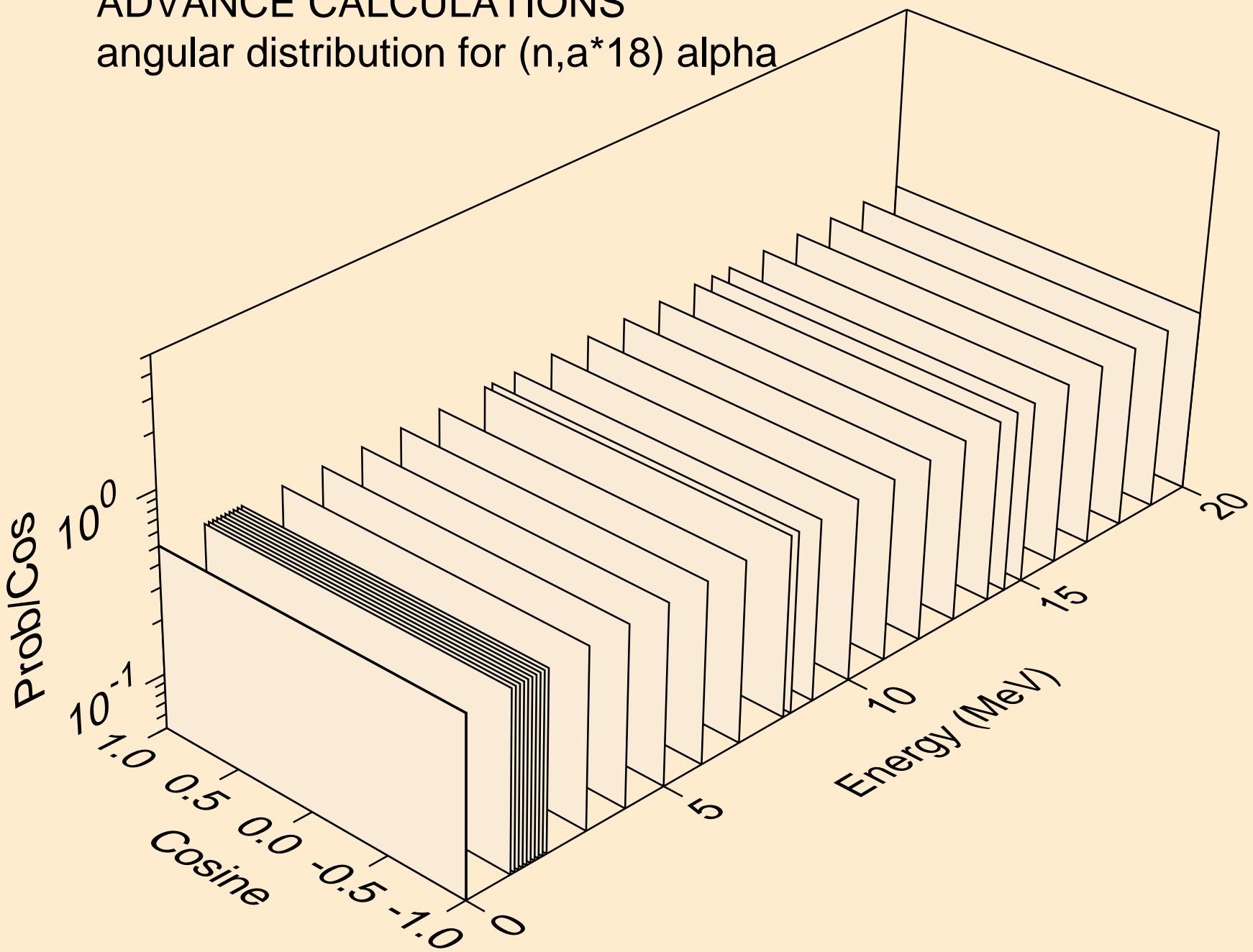
# ADVANCE CALCULATIONS

## angular distribution for ( $n,a^*17$ ) alpha



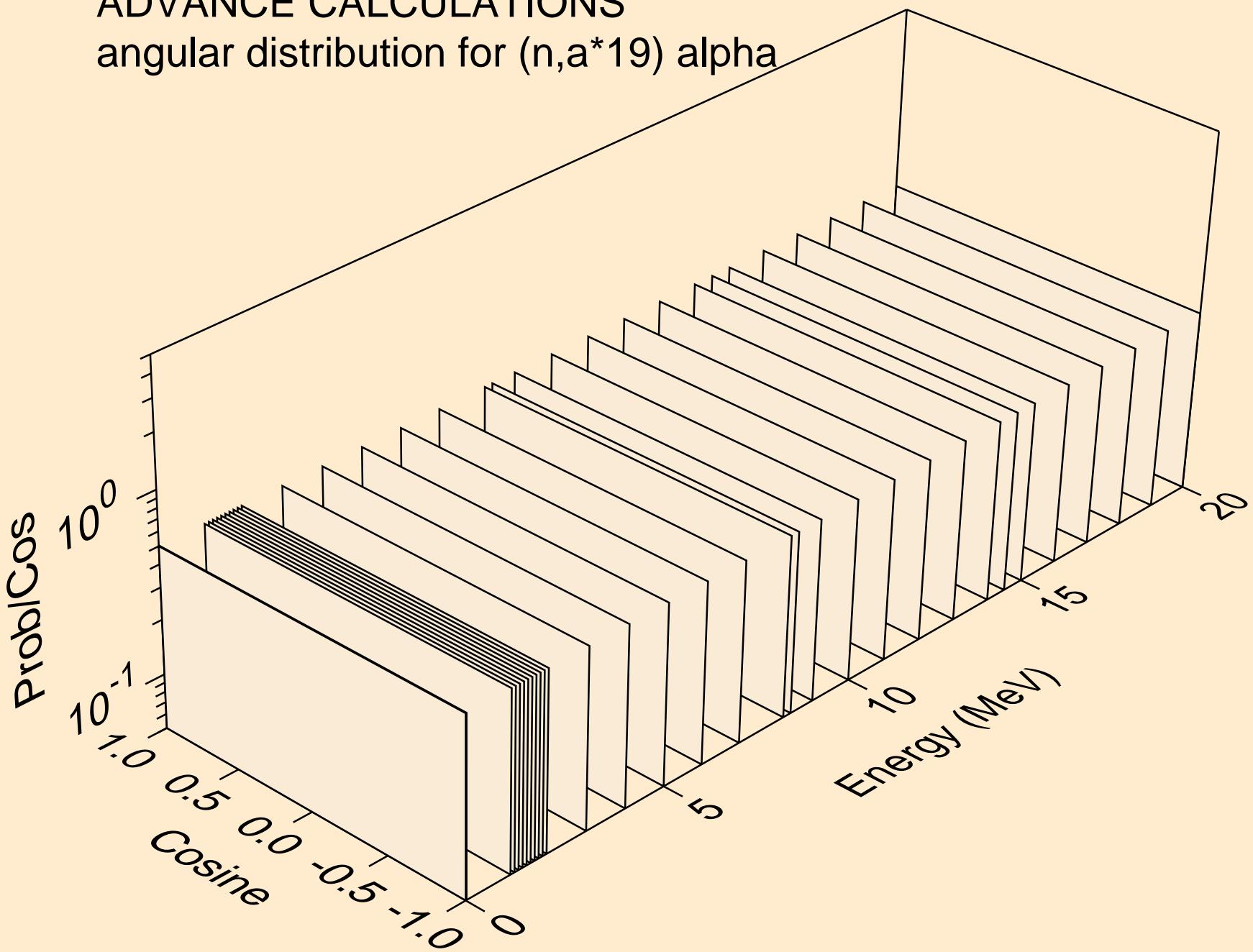
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*18) alpha



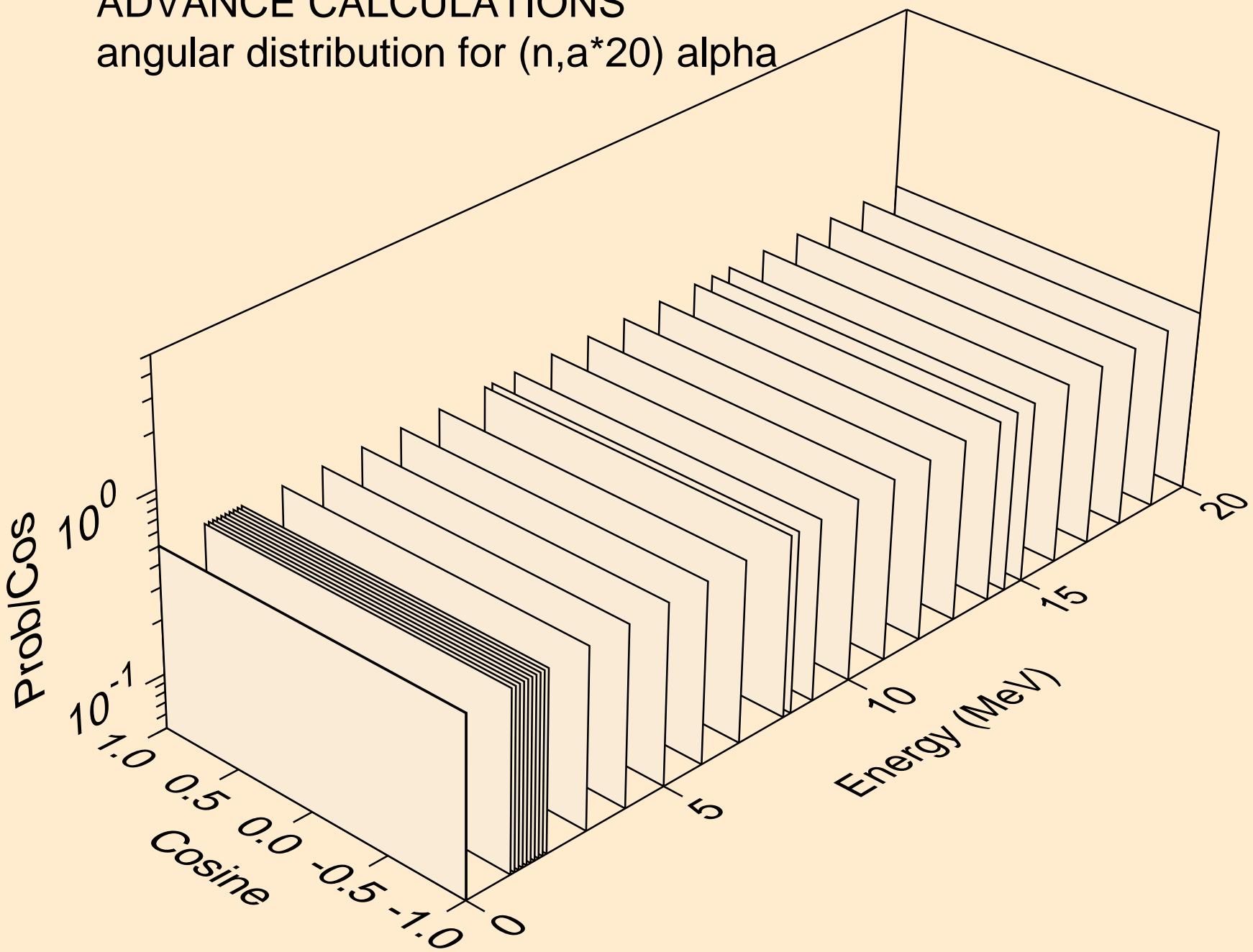
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*19) alpha



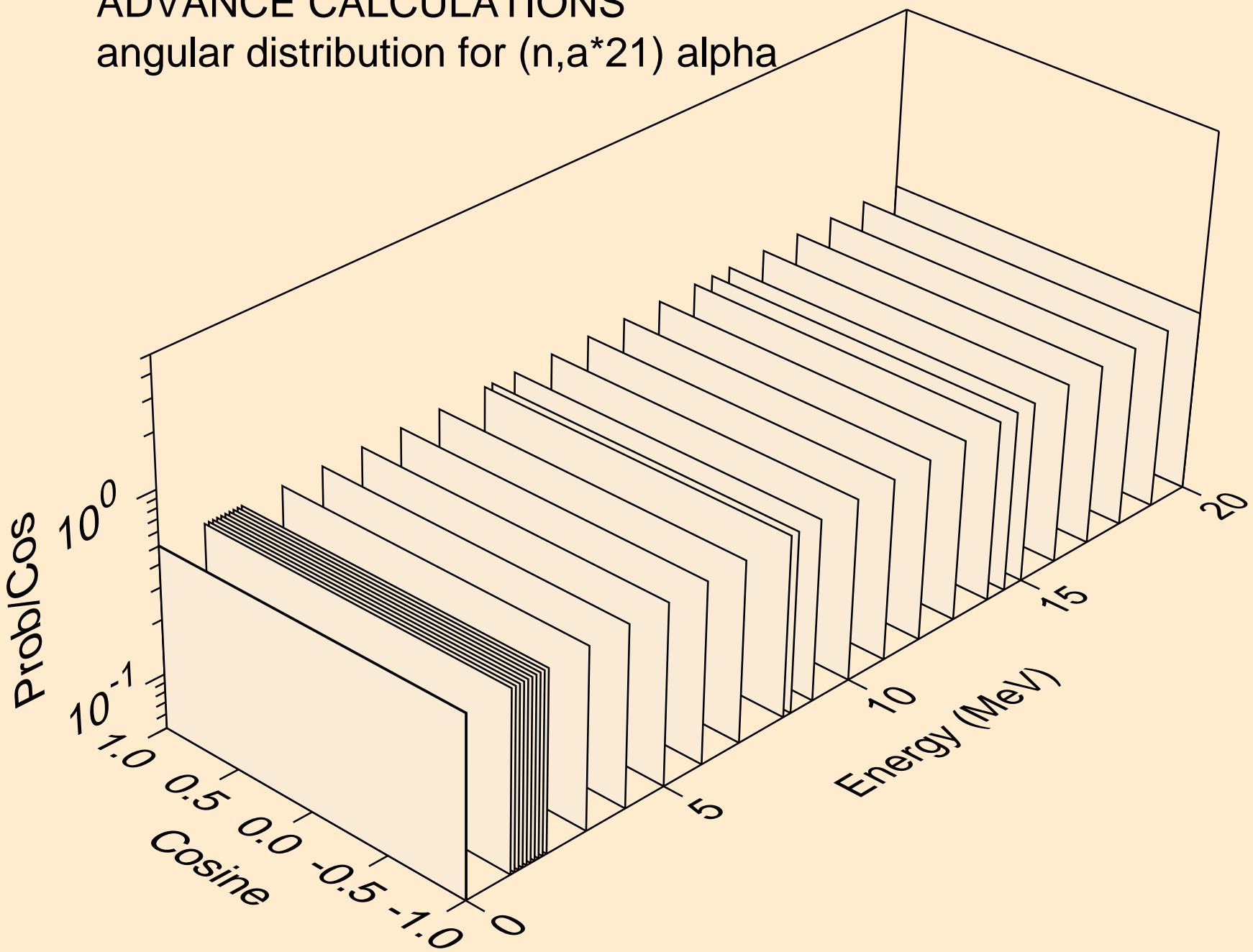
# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*20)$  alpha



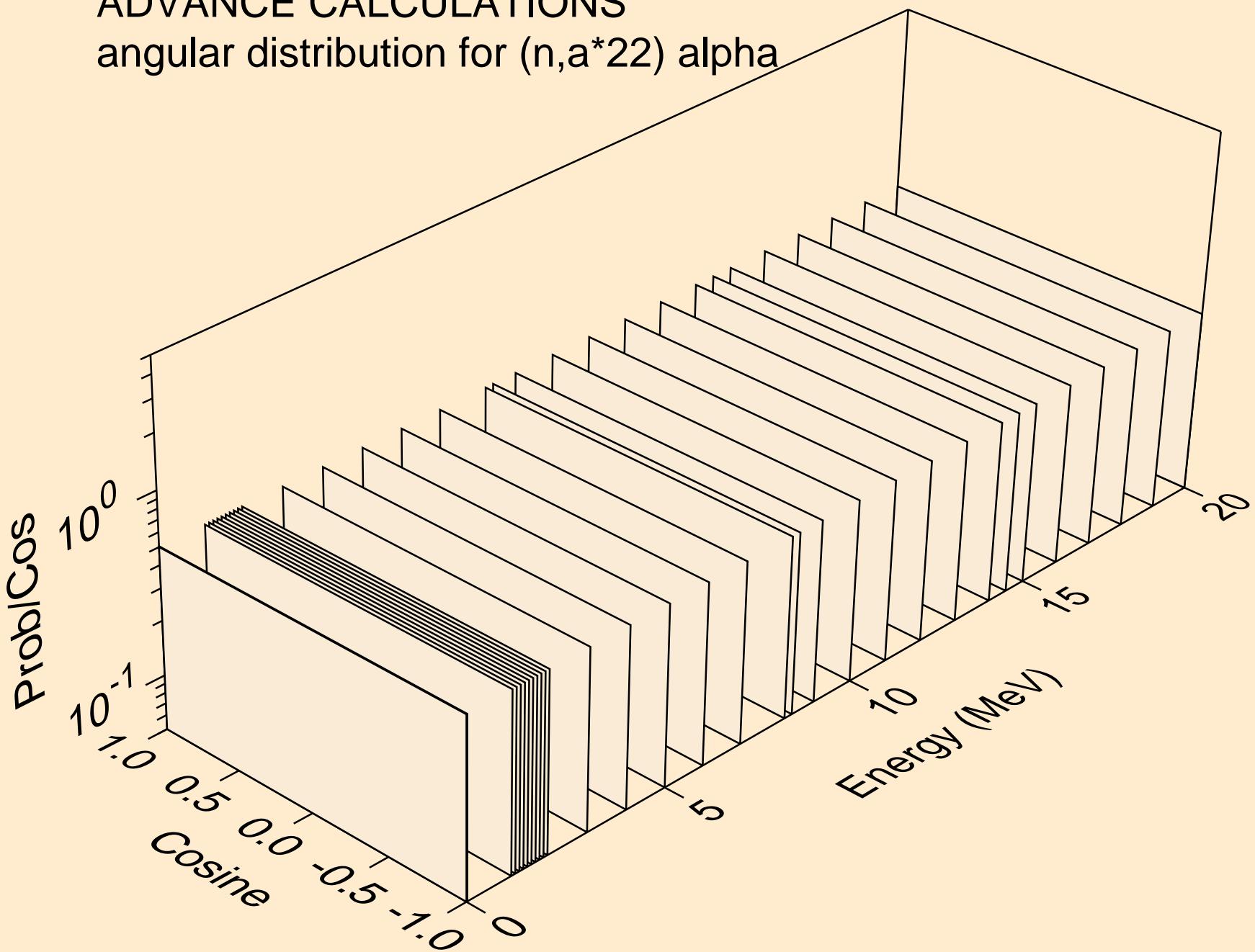
# ADVANCE CALCULATIONS

## angular distribution for (n,a\*21) alpha



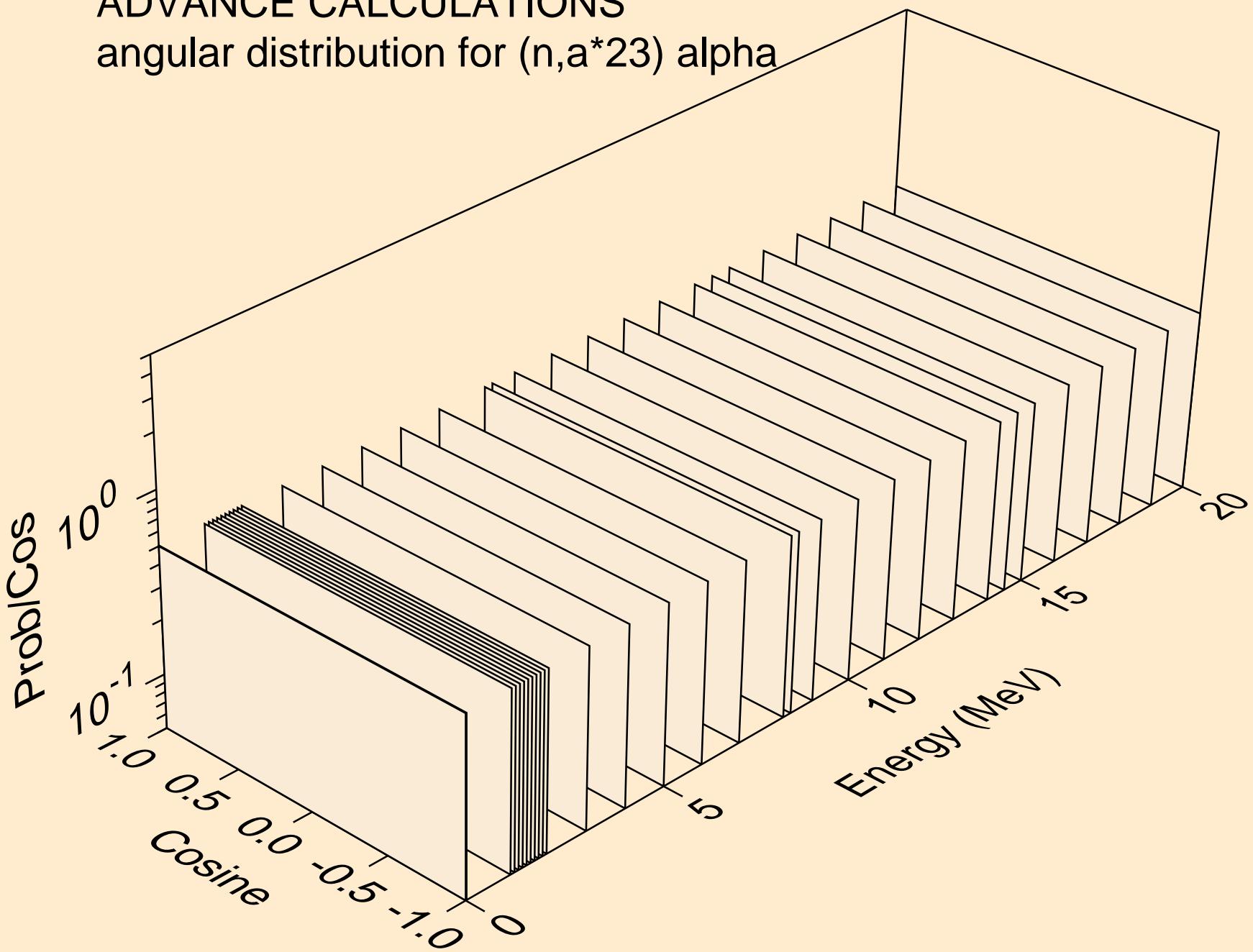
# ADVANCE CALCULATIONS

## angular distribution for ( $n, a^* 22$ ) alpha



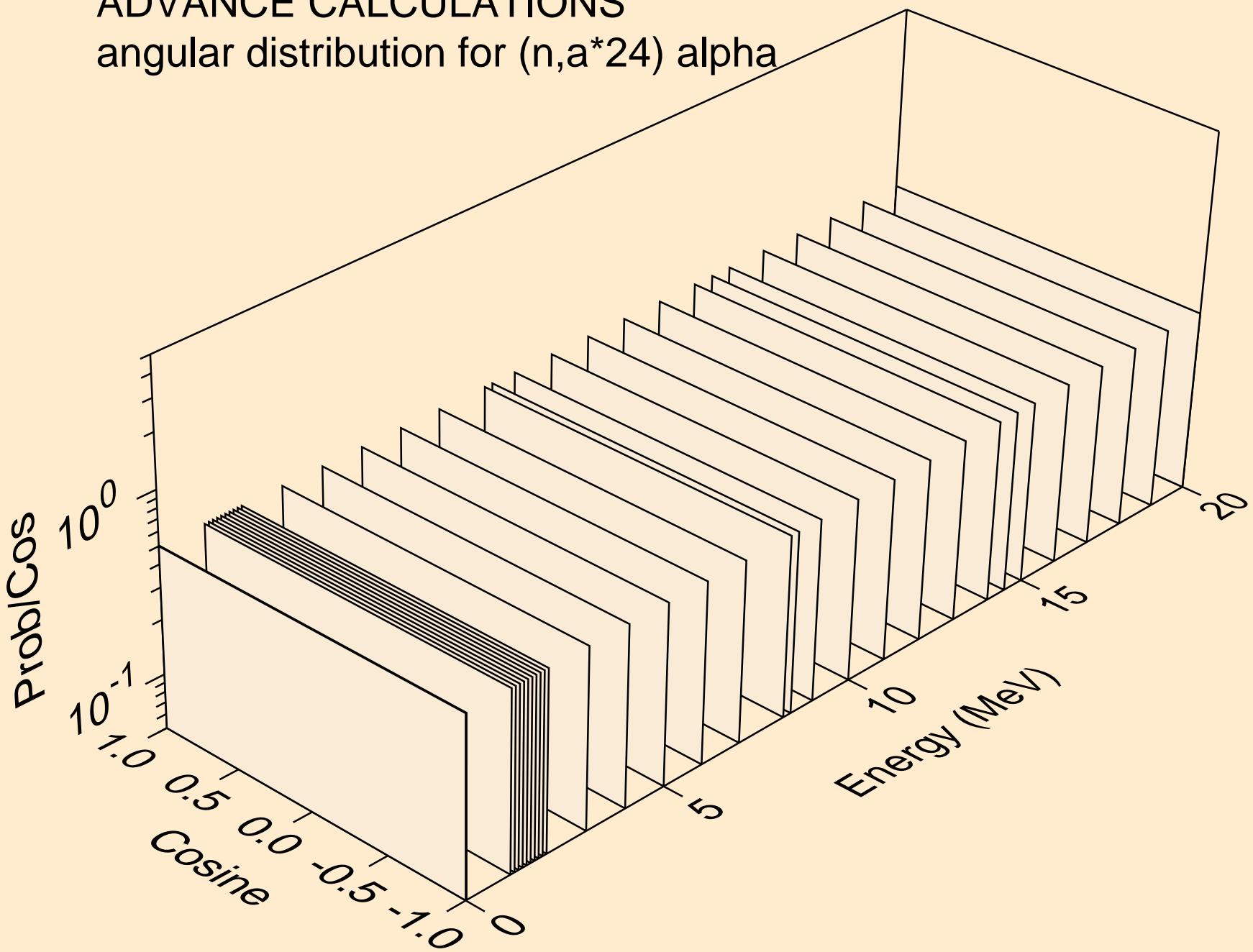
# ADVANCE CALCULATIONS

## angular distribution for ( $n, a^* 23$ ) alpha



# ADVANCE CALCULATIONS

angular distribution for  $(n,a^*24)$  alpha



# ADVANCE CALCULATIONS

alphas from  $(n,a^*c)$

